ARCHITECTURAL RECORD

BANKS AND OFFICES • MARCH 1945

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And the most *flexible* for esthetic design and functional planning!

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ROLLING MILL DIVISION
Phosphor Bronze and Brass
in Sheets, Strips and Rolls

WAR CONTRACTS DIVISION
War Materiel

MILLER
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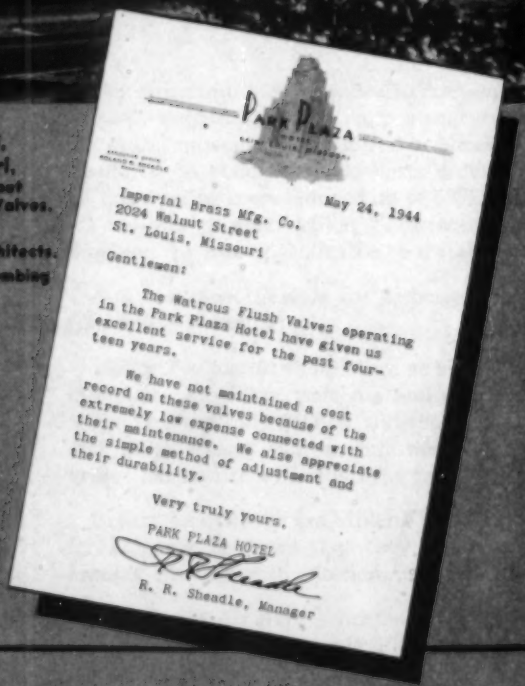

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THE RECORD REPORTS

Murray-Patman Bills and Construction • What of the NHA After the War? • WPB Strengthens Restrictions Building Programs • U. S. Prefabs for Britain, France

As Washington conversation skips about among the familiar themes of manpower shortage, the amounts of money this or that agency is likely to get out of Congress, OPA regulations, etc., Washington lobbyists have an uncomfortable sense that the Murray-Patman bills to create a national budget somehow may prove important. The bills require that the government call the turn on prosperity and depression and that, having called the turn, it make high employment its touchstone in deciding what to do or not do. Whether high employment would better be maintained by the programs usually associated with the left, such as large scale public works, high minimum wages, taxes on idle money, and the like, or, on the contrary, by reducing the part government plays in business, cutting taxes on companies and on persons in the higher brackets —is a question left, entirely, to the future discretion of the President and Congress.

Effects on Construction

The lobbyists seem to feel that the proposal is too big, too suggestive of future trends to dismiss and too vague to tackle. Those who watch the construction field say that it could result either in greater opportunities to build for their constituents or in a flood of public projects that would squeeze some of them out. Because construction is among the most sensitive industries, fluctuating with, but more sharply than, the general business curve, the lobbyists take it for granted that, if the bill passes, it is building primarily that will be tinkered with.

This is not quite the point of view of those sponsoring the legislation. They are keenly interested in construction and when they hold hearings will give much time to it. They cannot imagine high peacetime employment during a construction slump. But they are far from supposing that the continued prosperity to which they aspire could be engineered by an unfailing construction boom. Like Beardsley Ruml, they consider building an essential but not sufficient condition for a permanent bull market.

One question will be how the assurance of steady jobs would affect the industry. It is the assumption of the committee staffs that most everybody connected with construction is forced to pad his wage or price demands to build up reserves for the lean years. Assured that such lean years would not come, they could work profitably for less. The reductions in construction costs, they feel, would tap new markets.

Search for Programs

The second quest will be for specific programs for continued high building employment. It is taken for granted that when this question is asked, every special construction interest will dump its proposals in the records of the Congressional committees so that all of the old controversies — public versus private building, effects of local codes, property taxes, etc. — will be fought again. Congressional investigations are like that.

Staff members want to know what the industry could do if it were continuously at work. They want to rebuild all America every generation, with the construction industry in particular replacing public construction and housing in that time. Given 35,000,000 families, the steady replacement of urban and rural home units would provide a bigger housing market year after year than the industry enjoys during booms.

The pictures of full employment drawn by the Congressional committee, evidently, will be background to proposals by Henry Wallace for achieving it. The prospect arouses all kinds of reactions among Congressmen — enthusiasm, curiosity, fear that description of what full employment would be like will make the electorates expect too much.

Reaction of Trade

The Washington trade association men who might be expected to express unqualified dislike of the whole situation are not doing so. Whatever official attitudes they may voice later, they observe now that the Murray bill in itself is a blank on which anything might be written. They find kind words for Wallace. They take note of the many reports that he is blueprinting a "Bureau of Industrial Economics" and another "Bureau of Construction Economics" modeled upon the Bureau of Agricultural Economics which he created in the Department of Agriculture. They expect him to expand the statistical work of the Department. Groups which have been urging that a construction division be formed in Commerce do not intend to withdraw.

Those at work on the Murray bill will not be alone in study of the construction industry. Murray's Small Business Committee is at work on a series of hearings which, indeed, may

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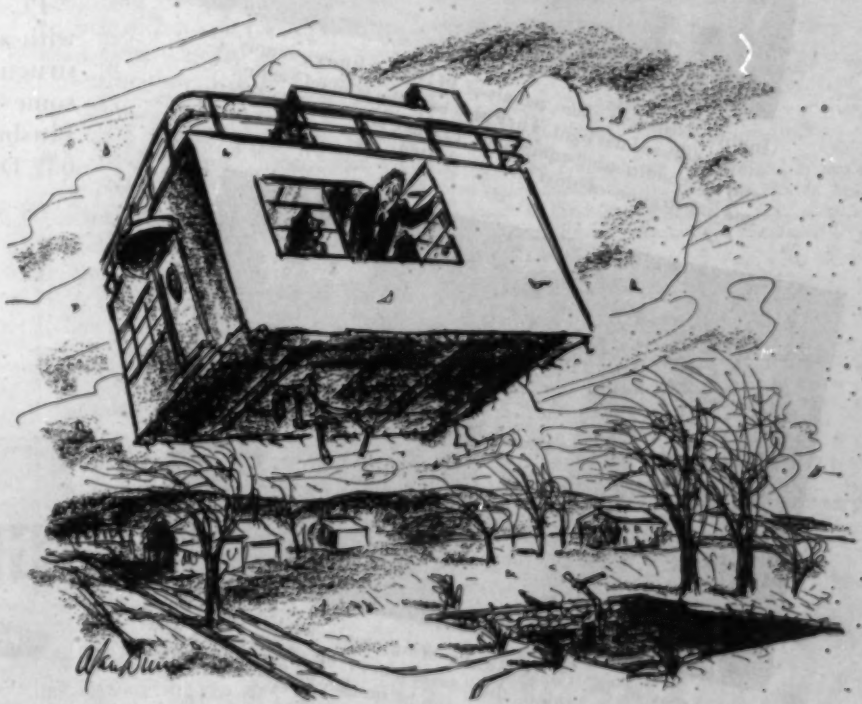
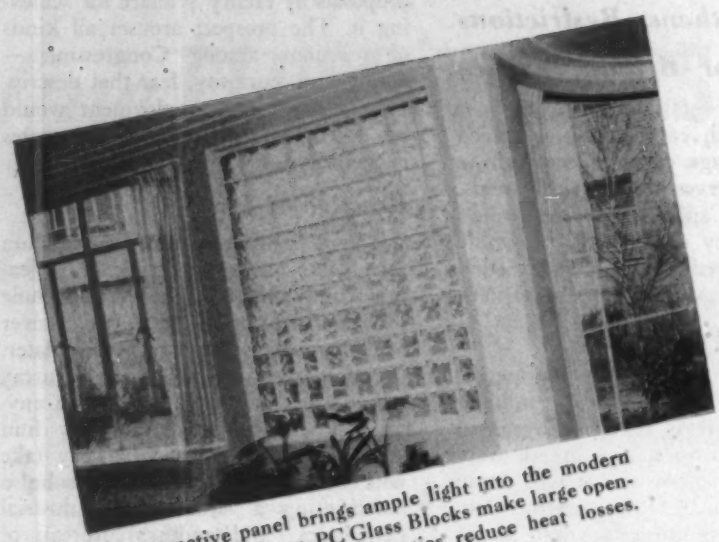


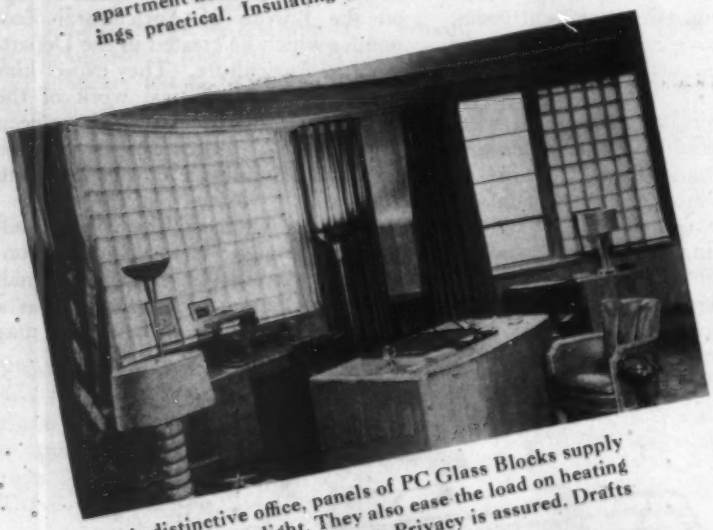
"There's one thing I don't like about these magnesium houses, my dear—"

—Drawn for the RECORD by Alan Dunn

FOUR MAJOR ADVANTAGES of PC GLASS BLOCK CONSTRUCTION



This attractive panel brings ample light into the modern apartment house foyer. PC Glass Blocks make large openings practical. Insulating properties reduce heat losses.



In this distinctive office, panels of PC Glass Blocks supply ample diffused daylight. They also ease the load on heating and air-conditioning equipment. Privacy is assured. Drafts and infiltration of dust are prevented.

Large areas of PC Glass Blocks bring ample daylight into this power plant. In addition, they save money on sash repairs and replacement, reduce heat losses, can be quickly and easily cleaned.

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PC Glass Blocks can be recommended with assurance to your clients for new construction and plant modernization. They come in a wide range of sizes and designs. Pittsburgh Corning Corporation, Room 722, 632 Duquesne Way, Pittsburgh 22, Penna.

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(Continued from page 7)

provide some of the material for the National Budget bill sponsors. The questions to be asked by the two groups are similar. The Small Business Committee wants to know how much employment construction can provide and what, if anything, should be done to stimulate it. It will look into impediments to high construction but, it is explained and stressed, this will not result in a witch-hunt. Relations between Murray's two groups are not yet clear. There will be like investigations in the House.

Taft Committee

Hearings by the Taft Committee resolved pretty much into a debate between those who favor and those who oppose continuation of the NHA after the war.

Spokesmen for the industry objected that the work of FHA in promoting privately-financed housing simply does not mix with public building. NHA officials and those who opposed them generally agreed to the broad proposition that private industry take the lead and that public be allowed some place in the field; nevertheless, the debate on the future of NHA implicitly was over public building. Judging by their questioning of witnesses and their own comments, members of the Taft Committee were equally unimpressed by claims of private builders that they could take over the work of the housing authorities and by those asking federal subsidies for slum clearance. They simply did not believe that subsidies help eliminate slums. Whatever legislation is proposed will go to the Banking and the Education and Labor Committees which will hold hearings of their own before making any recommendations.

Almost complete unanimity of opinion was shown by the various private building groups whose representatives testified in the Committee's final two days of hearings. Main points stressed were:

1. The NHA should not be continued into the postwar period.
2. The various housing agencies should be returned to the independent status they enjoyed before the war.
3. Low-income housing and slum clearance should be achieved by means other than public housing.

Some disappointment was felt that with such men as Douglas Whitlock of the Producers' Council, Herbert Nelson of the National Association of Real Estate Boards, and Eric Johnston of the Chamber of Commerce testifying, so little in the line of concrete suggestions for increased private low-cost housing should have been offered. Public housing enthusiasts pointed out gleefully that though all of the speakers had criticized public housing, none of them had offered anything as a substitute. Certainly Senator Taft and his committee again and again tried to prod the speakers into definite proposals along this line, and to no avail. The significant thing, however, is not this lack of concrete proposal, but the overwhelming agreement of all the witnesses that public housing is not the answer to the problem.

Chief criticism of public housing was that it has not succeeded in doing what it set out to do. As Mr. Nelson put it: "We believe . . . that a candid appraisal of the public housing program will indicate that it has not served the objectives set up for it. It has not on the whole eliminated slums nor functioned in the slums, although there are some notable exceptions. It has not served the public most in need of help. On the contrary, the tenant selection process has sedulously avoided taking people on relief or without employment."

As for the NHA and the separation of the agencies, one after another of the speakers stressed the successful prewar functioning of the FHA and the FHLBA, and the purely wartime-emergency reasoning out of which the NHA was created, grouping all federal housing activities under one head. The FHA particularly came in for praise, with several of the witnesses emphasizing that it alone of the housing agencies is self-supporting. There was no lack of concrete proposal here. Instead, there was strong urging on every hand that those federal housing activities connected with financing be coordinated with the other financing agencies of the government, those connected with welfare coordinated with welfare, etc. Thus the FHA and the FHLBA would be reestablished as independent administrations under the Federal Loan Agency.

The feeling against the NHA on the whole seemed to have nothing to do with the way in which that agency has functioned during the war. There was only favorable mention of Blandford, and no real criticism of the NHA's handling of the war housing program. The idea seemed to be that continuance of the NHA would eventually put the small independent builder out of business.

NHA Future

Those trying to get rid of NHA are not putting exclusive reliance upon the Taft hearings. The trade associa-

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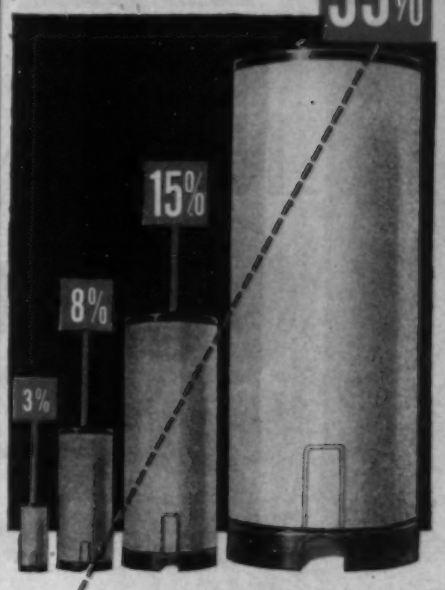
NOW---- 35%



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(Continued from page 11)

tion men, having drawn up a bill to wind it up at once, are in search of a Congressional sponsor, preferably aligned with the Administration. The strategy is not to criticize NHA but to applaud the efficiency with which it finished the job of providing war housing. Forecasts, meanwhile, are being made freely that Wagner will introduce a bill to make NHA permanent but Wagner himself has not commented on them. For the next several months he will be busy with other matters—Bretton Woods, increasing the federal debt limit, the extension of OPA, and, perhaps, the broadening of Social Security laws.

Proposed Program

The prospective Congressional studies of the possibility of stabilizing construction will not collide with adamant industrial opposition. The recent pamphlet by Miles Colean, "Stabilizing the Construction Industry" (see page 83), is highly commended by some association spokesmen in Washington. The proposals are (1) that a "Bureau of Construction Economics" be organized in the Commerce Department to assemble and publish essential data; (2) that Commerce work out a program for technical research; (3) that public works be timed to keep the industry employed when private construction slumps; and (4) that RFC extend credit in emergencies for local projects. But while ideas for stabilizing the industry in the indefinite future are explored and commended, they are not accepted for the immediate present; the House refused money for the Federal Works Administration to carry out legislation passed last summer to advance money to local governments for postwar works planning.

NHA Budget

During the Congressional hearings on NHA's budget for the fiscal year, June 1945-46, it was brought out that the agency's job will shift widely in the next year and a half. Federally-financed war housing is completed, allowing for emergency assignments in the event of sudden changes in war production. The recent stepping up of the munitions program, for instance, has resulted in an urgent need for additional war housing facilities in many communities, and NHA is asking for $90,000,000 for 36,000 additional temporary units. Another $100,000,000 is being requested for Title VI FHA insurance loans for private

(Continued on page 126)

The Mt. Washington Sanitarium, Eau Claire, Wisconsin. Equipped with the new Ceco Intermediate Casement.

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POSTWAR ROUNDUP

Heat for Outdoors

A unique method of heating a home by extracting heat from the outdoor air, even when the temperature outside is below freezing, is a definite commercial possibility for the near future, G. K. Marshall, General Electric air conditioning engineer of Bloomfield, N. J., told the Lehigh Valley Section of the American Institute of Electrical Engineers recently.

Several installations of this type of system were made before the war, Mr. Marshall said, and are still operating satisfactorily. Not only heating but year-round air conditioning is possible with the same equipment.

Basis of the process is a heat pump, a refrigerating system in which advantage is taken of the heat given off in the process of cooling air rather than of the cooled air itself. In heating, the unit will realize a minimum of 87 per cent fuel efficiency, and, under some conditions, the fuel efficiency will exceed 100 per cent, Mr. Marshall said.

Underlying principle pointing to the possibility of using this reverse cycle refrigeration method for year-round air conditioning, with more efficiency and less fuel cost than is possible with present equipment, is the scientific fact that there is heat in the air at all times, winter as well as summer. Reverse cycle refrigeration, or the heat pump, as it is more commonly called, works on the method of separating this heat in the air from whatever cold there is in the air, adding the heat produced by the electrical energy used to do this work, then piping the result through the house.

Stabilized Wood

Removal of military restrictions on certain information has enabled the U. S. Forest Products Laboratory at Madison, Wis., to announce another Laboratory-improved wood—*Staypak*. Staypak is a heat-stabilized, high-density product made by compressing either solid wood or many layers of thin veneers. The material contains no resin except, in the case of the laminated product, normal amounts of resin adhesive to bond the veneers during pressing.

Staypak was originally conceived as a stabilized wood specialty material that would have the same general characteristics as resin-treated compressed wood (compreg), plus the virtue of toughness.

Not now in commercial production, Staypak is expected to have such postwar uses as in spar plates for stengthening the joints between fuselages and wings in the small airplane, in propellers for aircraft, in tool handles, tooling jigs, pulleys, etc.

Chemicals

Monsanto Chemical Co., St. Louis, has announced that it plans postwar volume production of *aluminum metaphosphate*, and predicts that the product will open new horizons to glass manufacturers. From aluminum metaphosphate can be manufactured glass which transmits a substantially greater amount of ultra-violet light and its accompanying Vitamin D. The company has suggested postwar fluorescent lights may utilize phosphate glass because of its ultraviolet permeability, and that it also may be found useful in windowpanes of hospitals and solariums.

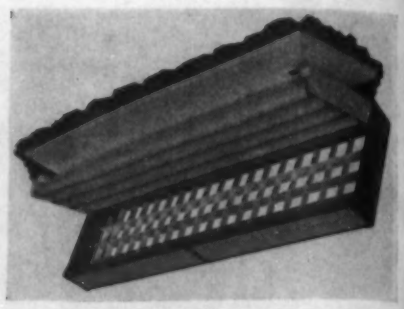
Monsanto has also announced that it will soon begin volume production of *melamine*, a century-old Swiss chemical, neglected for years and now found to possess utility in a wide range of war applications as well as almost limitless peacetime possibilities. Used in textiles it will make the fabric more shrink and crush resistant without changing its feel and appearance; in plastics it produces a material characterized by limitless color range, good resistance to high and low temperatures, superior arc resistant properties, excellent moldability and exceptional utility as a surface coating. Melamine resins have also been found useful in the preparation of plywood glues and laminates.

LIGHTING

Indirect-type Fixture

Designed to provide best seeing conditions for critical eye tasks in offices, drafting-rooms, schools, etc., is the new *Cadet*, a "luminous-indirect" type of fixture.

Suspended 24 to 30 in. beneath the ceiling in individual or end-to-end lighting arrangements, the Cadet has translucent cream-white deflectors to deliver in the ratio of 90 per cent upward and 10 per cent downward; off-white ceilings are recommended with the system for the best results. The fixture is made in 48 in., 60 in. and 96 in. lengths, for 40 watt, 100 watt and 40 watt lamps respectively. The Cadet has recently been installed in all study rooms of the United States Military Academy at West Point. It is immediately available with suitable priority. The Edwin F. Guth Co., 2621 Washington Ave., St. Louis 3, Mo.



Hinged fixture for easier servicing

New Type of Fixture

Unusual convenience is claimed for a new type of fluorescent lighting fixture equipped with the *E-Z Servicer*. The fixture, which is patented, is hinged so that one man can open it for cleaning or changing tubes. No tools are required; both hands are free.

The E-Z Servicer fixture is now made in four models including both ribbed glass glare shield and louvered types, industrial and commercial designs with two, three and four tubes and starter or instant type ballast. Can be installed in either single ceiling fixture or in continuous runs. R. & W. Wiley, Inc., Dearborn and Bridge Sts., Buffalo 7, N. Y.

New Fluorescent

New fluorescent lamps providing instant starting, high efficiencies and simplified installation and maintenance have just been announced. They will be supplied in smaller diameters and new standard lengths up to 96 in.

Operating without starters, these lamps—designated as *LS Types*—may also be operated in series on a single ballast at 100 or 200 miliamperes or at other currents within this range to provide high lighting levels or lower intensities for many industrial and commercial installations, including hallways, showcases and railway cars. The lamps, equipped with single contact bases, are available in 3500° white.

Also announced by the same company is a new 13 watt miniature lamp in white or daylight, 21 in. long and ⅝ in. in diameter. Sylvania Electric Products Inc., Salem, Mass.

WELDED TRUSSES

The Austin Co., engineers and builders, has adopted a new design for welded trusses of standard 50, 60, 70 and 80-ft. lengths in which H-sections with their webs in a vertical plane are used throughout without gusset plates.

This truss is said to be readily adaptable to different loadings by changing the weights of the beams used for the various truss members. By keeping

(Continued on page 144)

Beyond Architecture

✦ Winning the war does not preclude planning for peace. The work of production for destruction must go on until victory is won. Our national resources, material or human, must continue to be used to that end without regard to cost, for war is waste and this depletion of resources is inevitable. Production has reached undreamed-of volume of "expendable" material and manpower. But production for destruction must someday cease and production for better living must take its place. A new standard of living is envisioned when the energy and resources of the nation, and of the world take that new direction.

✦ Ways and means for engineering that change, for maintaining present volume of production, for financing, for distribution, for insuring maximum employment and maximum purchasing power of all the people—all are being put forth, advocated and discussed. In all these plans the place of construction, of building, looms large. In many plans, construction, public and private, is counted upon to take up much of the slack in the transition period, and to provide continuous "billions of national income" thereafter. It behooves the planning profession (architects and engineers) to concern itself with the magnitude and diversity of the problems inherent in this dependence on construction.

✦ The realistic analysis of construction's postwar potentials* shows a dollar volume far below the estimates made by those who are currently establishing the quota of national income to be provided by construction in a "full employment" budget. The question is how and when can, or will, the construction industry be geared to a fifteen-to-twenty-billion dollar volume? What new philosophy, legislation, stimulation, techniques and materials will be necessary? How can government and private enterprise work together to the desired end? Steps proposed to reach this end involve major questions of finance and taxation, production and distribution, legislation and trade practices, land control and use—which may seem a far cry from the architect's technical design problems. Yet leadership in the building field demands an awareness of these problems and a thoughtful contribution toward their solution.

✦ The architect has a stake in the nature of the solutions reached, for he must work within the limitations they establish. Laws will be written and practices established that will affect his way of working and even the scope of his functions. The voice of the architect can be heard and can be most effective through his organizations. That he may be informed of current thinking, and may form intelligent judgments on the overall problems of the industry we continue to publish articles on subjects which transcend the limits of his technical professional work, as well as those related directly to the projects in his office. An article in point will be found on pages 83 to 86 in which "Stabilizing the Construction Industry," by Miles Colean, is discussed by Thomas S. Holden.

✦ Ways and means proposed for increasing construction volume and for leveling out its wide fluctuation need to be clearly understood, widely and intelligently discussed and carefully judged before adoption.

* *Architectural Record, December, 1943.*

Kenneth K. Stowell
EDITOR

ARCHITECTURE'S PLACE IN CITY PLANNING

By Joseph Hudnut

One of my friends, a man of excellent judgment and fine character, said in a public address recently that, in his opinion, architects ought to play a very limited role in the planning of cities. Architects, he said, are not armed by education or by experience for a task so obviously integral with social and economic valuations as is city planning, nor have they as a rule the resourcefulness and diplomatic skill which are essential for the practice of that political art. Planning, he added, has become a profession distinct from architecture, having recondite principles and highly specialized observances of which architects are by a law of nature innocent. Architects therefore would do well to withdraw from that field or, if they enter it, do so under the guidance of the planner, well versed in a new and recently funded knowledge and trained in the intricacies of new techniques; and my friend concluded by saying that the attitude of an architect vis-à-vis a planner ought to be one of humility.

I must confess that I entertain some prejudice in this matter, a prejudice encouraged, I am afraid, by my long-sustained interest in the history of architecture. There came into my mind as I listened to my colleague a procession, not lacking in color, of architects engaged in city planning. I saw Christopher Wren laying his *Plan of London* at the feet of King Charles; Dinocrates bending over the plan of Alexandria; Gabriel receiving his prize for the *Place de la Concorde*; Hère pacing the bright new sequences of Nancy. I could not resist a certain sadness at the thought of the architectural talent thus wasted on uncongenial themes, of the great renowns which are now seen to be undeserved, of the pomp and pageantry of a stream so long continued and now doomed to extinction amid the bogs and quicksands of a delta framed by the dry deserts of economics and sociology and the perilous sea of politics.

Certainly there was no one until quite recently—unless it was Patrick Geddes—who could have predicted this untimely end of the architect-planner, so ancient and aristocratic was the tradition of architecture in city planning, so firmly were its conventions, its modes of operation and its philosophy guarded in that field. With what confidence only thirty years ago the architects of the *Plan of Washington* framed their parade of palaces, their heroic abstractions of vista and monument! With what condescension they acknowledged the presence of the population, audience to their sculptural symphonies; with what impatience they noted the troublesome intrusions of economists; and even when at times they admitted to their company the shy, necessary engineer it was only to hide him instantly behind discreet draperies of pediment and peristyle. For centuries the architect had in this way carried into the organization of street and plaza the habits of thought and vision which had shaped cathedral and palace; for centuries his materials had been monumental structures and organized space; axis, vista and sequence; climax, balance, proportion and rhythmic disposition; and the correct authority of Rome. With these he had played as readily in the city streets, as in the forms of shelter, building out of civic elements by the well-tried formulae of classicism theaters for civic life indistinguishable except in breadth and scale from those which he built for a private clientele. The two arts, architecture and city planning, were in practice one.

Yet there were in motion, even as McKim and Olmstead laid out the vast geometry of Washington, two currents, separate and in some ways opposite, which were to shatter this unity with sudden impacts, each according to its special nature so violent as to throw the architect from the throne where he had so long and so complacently presided. These had gathered force slowly over more than a century. Their invasions of city planning, however explosive to architecture, were yet prepared by movements long operative below that warm, placid surface upon which that aristocratic art was accustomed to bask.

The first of those currents had its origin in the ascendancy of economics among the speculative sciences of the XIX Century; the second grew out of the new social philosophies engendered by the Industrial Revolutions. A new industrial system, wasteful and cruel, was allowed to evolve itself out of the "free play of an enlightened egotism"; magnificent new technologies were used to make that system the more barren in social progress; and maladjustments acute, sudden and devastating inevitably appeared in the fabric of society. Nowhere were these more terrible in their consequences than in the great cities which everywhere poured their populations, increasing as frantically as the broomsticks of the *Sorcerer's Apprentice,* into ever-widening miles of civic dishevelment. The impotence of classic architecture to bring order into these vast complexes could not be long ignored, and the hope that social health might be restored by science was wholly congenial to the temper of a people who had put their trust so completely in that form of thought and analysis. The time was bound to come when men should discover principles of civic reconstruction in those imposing structures of theory which confidently predicted the reign of reason and philosophical system in the living organisms of cities. The eclipse of architecture ought not to have been surprising.

The Baron Haussmann is said to be the first city planner to announce a secondary role for architecture in the design of cities. If he was not the first to conceive the city as a great machine for production and consumption, he was at any rate the first to translate that principle into practice. Certainly there were few architects in that staff of specialists which formed his tool for the rebuilding of Paris. He relied upon economists, politicians, physicians, engineers—in a word, upon scientists—to bring the queen city of the Renaissance into conformity with an industrial age. The bases of his projects were not architectonic principles but the requirements of traffic, the promotion of industry, the conditions of public health. A science of planning replaced the inherited art of civic design.

It is true that Haussmann made Paris magnificent with many showy buildings—he was not ignorant of architec-

ture—but these buildings were introduced as incidents merely in a pattern of streets. They gave no law to the city. His gorgeous constructions were ornaments pinned here and there on the breast of Paris and, like ornaments, were useful to give continuity or emphasis to the pattern of streets. They were subordinated not in relative scale merely but in their influence. No longer do they project their principles of order into the civic elements which surround them: plazas, streets and vistas no longer echo their proportions or continue their rhythms. When the Emperor decreed that his own splendor should be confirmed by splendid monuments conspicuously placed, it was enough if these were given an axial relationship to a street. The Opera, for example, looks as if it had got in the way of a boulevard which otherwise would have gone on to the edge of the earth.

From that time on the sovereignty of architecture in city planning was silently and progressively challenged: not the sovereignty of architecture alone, but of the architectural principle. The authors of the *Plan of Chicago* made a great to-do over mighty ensembles of public buildings but their real solicitude was for the railroads. The *Regional Plan of New York* flattered that city with many a fine proposal for monumental vista and plaza, but we know how adventitious these appeared beside more exigent schemes for harbor reconstruction and industrial redistribution. The economist and his cousin, the civil engineer, were the true authors of these ambitious efforts for civic order; and economist and engineer are arbiters in the great number of civic improvements actually undertaken in our time. The architectural legend has reached its final chapter in New York City where factual-minded administrators, impatient of idea, measure city planning by the acreage of concrete pavement laid on escape-routes leading to the country. In that city the very limited objectives of planners include, to be sure, some architectural tidbits; but the idea of civic form, of that comprehensive structure and balance which is the essence of the *architectural idea,* is by official decree taboo.

The city planner, thus immersed in economics, has suffered a strange sea-change. Whereas he once dealt in academic usages, in theories of form rendered in perspective and water color, his stock-in-trade is now composed of statistics, diagrams and high-piled granaries of surveys and charted data. Frustrated of peristyle and dome, he turns to his million maps exquisitely and enigmatically colored; he has a language full of strange new transcendentalisms; and he will plot you a curve at the drop of a hat. Being of a compassionate nature, he tolerates architects so long as these know with proper humility their place in his new order.

Nevertheless, the science of city planning is not in our day merely concerned with economic objectives. While the city was being transformed in the consciousness of economic planners into a mechanism for manufacture and merchandising there were other city planners, not less fertile of theory, who conceived the material of their art to be, not industry and commerce merely, not the facilities merely which serviced these, nor yet the "economic man" who was to be made happy by producing and consuming, but rather that *society,* that aggregation of human beings who, with all their inheritances of social habit and cultural tradition, of conflicting loyalties and inapposite folk-ways, had become through the blind operation of economic law imprisoned in these unpitying machines. It was evident that the undirected growth of our cities had produced, not physical chaos merely, but social chaos; and the daring thought was ultimately inescapable that by giving direction to that growth chaos might be overcome. There should be a social science of planning having as its objectives the establishment of such patterns of behavior among men as might again give meaning and direction to the life of cities.

Man cannot live except in a society. Since we cannot abandon our cities nor yet delay the onward march of invention, we must create in cities a society tempered to withstand the attritions and subversions of modern industry. If we are to endure things so monstrous as mass production and the assembly line we must contrive some new armor against them. We see how our new technologies of production challenge our familiar ways of life, our time-honored institutions, our cherished faiths, and we know that these must be reconstructed if our civilization is to be continued. Why not then search out the guides to whatever new social crystallizations are possible and try to discover the means for setting in motion the currents of feeling and thought which may assist these? These guides and these means will at least be as certain as those of economics and as worthy to be called a science.

These considerations, formulated early in the XIX Century by Robert Owen, have prompted an art of city planning addressed not to wealth and the distribution of wealth but to that social health without which wealth is of little consequence. I know of no better illustration of this kind of planning than slum clearance and the construction of government-sponsored housing for that part of our civic population discreetly called the "lower-income group." Here, if anywhere, is an arrant interference with the operation of economic law; an interference which deliberately prevents the free determination of rents by the sacrosanct law of supply and demand and as clearly nullifies the ancient appanage of the poor to live and die in want and misery. When housing projects are further developed so as to encourage the growth of *neighborhoods,* when the nature and distribution of institutions—the school, the church, the shopping center—are among the materials of planning, and when the spiritual life of the people is sustained by recreational areas, parks and playgrounds made accessible and patterned for their use; well, you have then the beginnings of an art of sociological planning.

In this way it has come about that two new principles, different in direction but not irreconcilable, have carried forward the art of city planning and together have apparently swept that art out of the province of architecture. How foolish are our domes and porticoes, our Greek and Roman toys, our Parisian sophistications, beside their eager and purposeful march; how impotent our antique symmetries, decrepit amid the winds which are re-shaping the world, to channel them for the happiness of mankind. If city planning may have any part in directing these terrible energies—a debatable hypothesis, certainly—it will not be city planning in the classic mode of architecture.

Must we conclude, then, that architects have no longer a role to play in city planning? Shall we resign this field as gracefully as possible, accepting our place as audience merely to those who formulate and implement policies of economic or social reform—or, more immediately, to those confident administrators who direct the planning agencies? Our products although integral to cities and serviceable to narrower segments of society are yet to be, outside of their own boundaries, careless of a wider

social consequence?

Let us consider this matter. It must be admitted, in the first place, that an architecture which participates in the life of cities must do so in collaboration with whatever forces strive for economic well-being and social reconstruction. We must seek out a basis for that collaboration and establish the mutual understandings which will assist it. A unity of objective, not, I am afraid, always evident in our academic and romantic art, must be made unmistakable. This implies a certain reorientation of our profession or at least of that part of it which is to participate in city planning and a more cordial confidence towards all men at work in that field whether or not they entered it through the gate of architecture.

This truth needs no argument; but it does not follow that architecture, whatever its momentary decrement, ought permanently to design its leadership in the field of city planning. Cities, as it happens, are made of buildings. Cities are not lines scratched on the ground; cities are three-dimensional; cities occupy space. You have not known a city when you have known its plan; you must know it sculpturally, as something made of material substances assembled, shaped and arranged for use. These substances, the substances of cities, are buildings.

Each building in a city is an element in the pattern of the city. When we add a building or remove one we are, so to speak, retouching that pattern. We can do that consciously, keeping in our minds as in those of any artist the effect of our detail upon the total design, or we can be careless of that design and even indifferent to it; but in either case we are participating in a civic art. The totality of our participation exceeds by far that of any other vocational group. There is no way, therefore, except by ceasing to be architects that we can renounce a critical role in the making of cities or escape a responsibility for that making.

I will not deny that this responsibility is limited by practical considerations. Architects have clients whose interests are not always consonant with the welfare of the city. We have sometimes to build on sites which ought in the public interest to be left vacant; to destroy with shops the peace of residential areas; to upset the tax structure with unnecessary skyscrapers. We cannot always escape as the city planner can escape certain contradictory loyalties, nor is there anything in the traditional ethics of our profession which requires a sacrifice of our livelihood to the city's progress.

These considerations, it seems to me, strengthen rather than weaken the case for architecture in city planning. If indeed the individual practitioner is at times impotent to fuse his structures into the pattern of the city, how much more important it is that the city planner, who is armed with authority over buildings and over clients, should possess an understanding and a competence in architecture? Our buildings are not shaped by the practitioners of architecture merely but by ordinances, laws, and customs, and by their official interpretations. These are silent persistent forces as definitely the tools of architecture as are T-square and compass; behind the back of the architect they mold our buildings like some gigantic invisible sculptor. That official who determines the zones of use in buildings, who establishes their relationships to street and public place, sets them in space, limits their bulk, and disciplines their accessories of lighting and ornament, is as definitely their author as is that architect who draws his plans under that vigilant guardianship.

Is it not obvious then that he who thus exercises upon buildings must be trained in architecture? Shall we not provide these two, planner and architect, with a common basis of thought and habit and in that way assure their concentrated effort? And if any builder feels himself to be the servant of the city—and what other builder is worthy to be called architect?—has he not a right to expect from the civic officials who channel or limit his usefulness that understanding and comradeship which are the consequences of the discipline of architecture? That comradeship will be especially essential when in the years following the peace the themes of architecture become in larger proportion, not individual dwellings and places of business merely, but housing projects, schools, hospitals and community centers. These will be well-designed if we design them together.

That is an excellent reason for confirming to architecture its ancient importance in the making of cities; but there is a second reason which is even more urgent. The architect is and must indeed remain the master builder, the man of practical skill who creates the important materials of cities; and yet he is something more than an avenue through which technologies rain a blind influence upon dwellers in cities. His structures not only act upon civilization but, what is more important, they do so in a manner consciously determined by their builders. The architect not only uses technologies but controls them; addresses them to social objectives as clearly revealed as those of the planner; addresses them, indeed, to objectives often indistinguishable from those of the planner.

Now what is the idea which illumines our new architecture; that new architecture whose very substance is social serviceability, whose one intention is to assist the balance and stability of the social fabric? Is it not the idea of *planning*, of planning not only to secure the comfort of individuals but to lift and sustain the happiness of populations? At what cost, then, will you divorce this architecture from the planning of cities?

If there is a modern city planning there is also a modern architecture. Architecture like city planning has keenly felt the changes of a world transformed by science. Architects, no less than planners, have been prompted by the study and experience of science to renounce their most cherished superstitions. With equal resolution architects have set about the task of adjusting their thought and vision to the civilization now in process of becoming so that these might parallel the thought and vision of the sciences of society.

Whatever dissonances may exist between the traditions of architecture and these crescent sciences, there can be no fundamental or lasting dissidence between modern city planning and the new architecture. If each of these embraces an area of human interest and a mode of operation peculiar to itself and not included in that of the other, these divergencies are yet of less importance than those interests which bind them together. Each is inseparable, except in rare instances, from the collective life, the smallest unit of which is the family, the largest the population of a city. The materials of each art, if not the same, are yet alike in character since they comprise, first, those aspects of human existence which invite structural adaptations, and second, the material substances capable of such adaptations. They are integral also—architecture no less than city planning—with both the social and the physical sci-

ences and gain their vitality and usefulness from that integration. Identical in origin, these arts attained individuality as the consequence of a growing diversification of social activities, and yet in intention and character they continue an unequivocal and—until recently—acknowledged unity; nor is any high achievement possible in either art except as it flows from a philosophy mutually acknowledged.

Nothing could be more misleading then or more damaging to the cause of planning than that description of architecture, not without currency among economists, as an art of "physical planning"—a term intended to distinguish sharply the tangible and practical patterns of architects from the patterns of idea which occasion them and which would deny to architecture a social relevancy. The architect need not trouble himself then with the objectives of his constructions? It is enough if he is given a program which will lend itself to a material realization? He is to take his place beside the engineer, the practitioner of an honorable craft serviceable to cities no less than to individuals? And if architecture, beyond engineering, embraces not only the practical technologies of steel and the forms of shelter but also academic usages, the meanings with which history had overlaid our constructions, and even a conscious effort to express in the forms of buildings the temper of a society—well, these are to be understood as merely the elements of a private Heaven which could in the design of cities be conveniently sacrificed.

Such an interpretation of architecture would be absurd even if we were to renounce all conscious concern for a social objective. It assumes that buildings act upon society only through the purposes which shaped them, an assumption which unveils a total misconception of the nature of technologies and of the part they play in the shaping of civilizations. We must not think of technologies solely as consequences. They are also causes. The visible and felt aspects of cities and buildings have power to shape the society which inhabits them, and these aspects and that power are technological achievements. Whoever determines the technologies of our cities determines also and to a larger degree than we acknowledge the temper of our lives.

Steel has shaped American steel and the technologies of steel. Steel has established the vast new dimensions of our experience, accelerated the swift tempo of our activities, encircled with distant boundaries the range of our consciousness. We think in steel, and steel is shaping for us a new morality and social discipline. Shall we believe then that when we build in steel we are taking no part in the building of the contemporary culture? We know how Amiens confirmed the faith of the XIII Century and how Versailles upheld the authority of the French monarchy; is it likely that our constructions shall participate less in the life of America? Even if our buildings were indeed only arrangements of physical substances, they would yet form that silent environment of society, that man-made supplement to Nature which, as we know, has molded man and his destiny on earth.

We must make our new architecture the firm friend and constant companion of city planning; not merely because buildings are the prime substance of cities but also because the practice of architecture has become in our time so integral to cities that one can scarcely imagine a modern building designed without relevance to the larger pattern of which it is a part. Beyond these reasons there is a third which, if it appears in these unquiet times less immediate than those already given, will yet in any wide survey gain an even greater persuasiveness. I mean the utility in cities of the *idea of architecture* as this has developed from the beginnings of human history: I mean the power of architecture, proven a hundred thousand times to illumine cities, to give them meaning and importance.

Cities, no less than buildings—yes, even more than buildings—may attain qualities which transcend economic and social utility. Cities are themselves, in that sense, works of architecture. Cities can act upon us in ways not always apprehended by those practical-minded folk who think of cities in terms of land valuations and traffic control. For that reason, if for no other, the practice of city planning ought to be entrusted to men whose conscious control should include the command of forms which are not only practicable and convenient but favorable to the human spirit. I mean that they should be entrusted to minds accessible to the idea of architecture.

Our cities cry out for the celebration of that idea. No undertaking is more exigent, none more far-reaching, than that of overcoming the excessive industrialization of our cities by the recapture of those spiritual values which alone can make them endurable. Architecture is the bridge through which these forces participate in the design of cities and by that participation gain a continuing ascendancy in the city's life. To say that this is less important than the scientific control of economic and social life, assuming that to be possible, or less worthy the devotion of resolute men is to give added life to the very disease which is destroying our civilization.

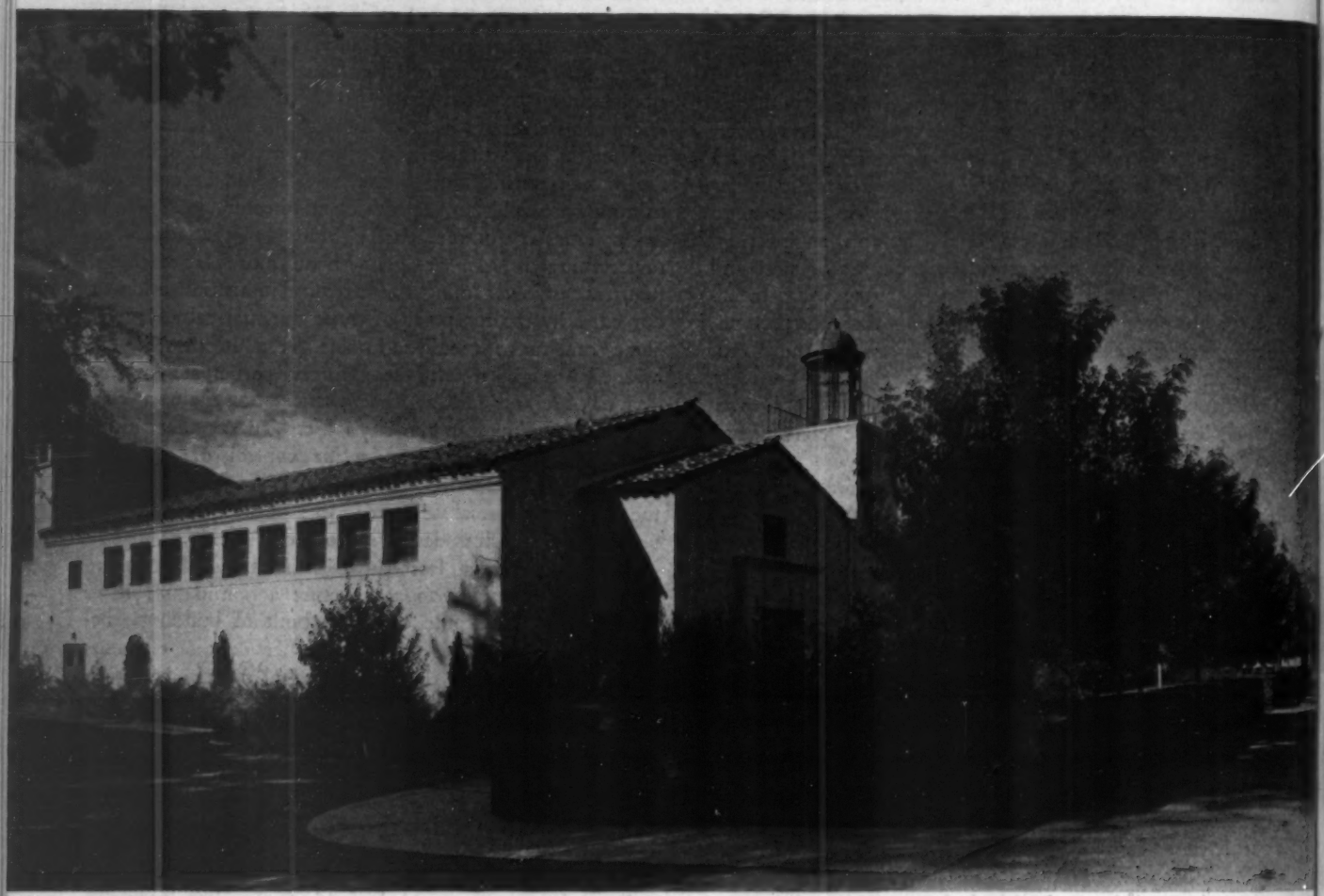
There are then at least three justifications, if such are needed, for assigning to architecture a dominant role in city planning. Because cities are built of buildings; because buildings are in modern practice definite elements in the social no less than the physical pattern of cities; because the architectural idea, invading all elements of the city, can lift it into an agency of the spirit; because, in short, city planning is an architectural no less than a political and social art, the architect, who invented city planning, who guided and sustained it through the centuries, must not, whatever his sins of omission, be rudely dismissed from this his most urgent and congenial field.

I am the more persuaded of this fact and of its importance when I consider the traditional competence of the architect as coordinator and executive. I have defined city planning as the *architecture-of-cities*. I meant by that term a technological art to which economic and social factors are relevant in much the same way that they are relevant to buildings but which through the conscious reshapings of art may attain a human interest and importance. The city planner whose habits of thought are those of an architect knows how to create his intricate pattern of idea out of society, climate, the market, and the laws of the spirit; and he knows also how to translate that pattern of idea into a pattern of performance.

The city planner will lose his most salient usefulness should he sacrifice architecture to his crescent sciences; and the architect who withdraws from city planning, consenting to the extinction of his influence in that challenging province, renounces also his widest serviceability. Our task, which we must undertake together, is to enlarge the range of architecture, to assist its reinstatement as discoverer and guardian, to reaffirm in this broader theater its majestic power for human happiness.

FOR BOTH EDUCATION AND RECREATION

El Tejon School, Pershing School District, Lebec, California



Frank Wyncoop and Associates, Architects and Engineers

El Tejon School, standing in an historic setting, recalls the Spanish influence of the valley's early days. In the canyon are the old Fort Tejon ruins. The Fort dates back to the time of the Indian uprisings and the war with the Spanish in California, so the school was designed in the tradition of the locality. It has the grace and charm desired by the community, and provides the facilities both for modern education and for community activities.

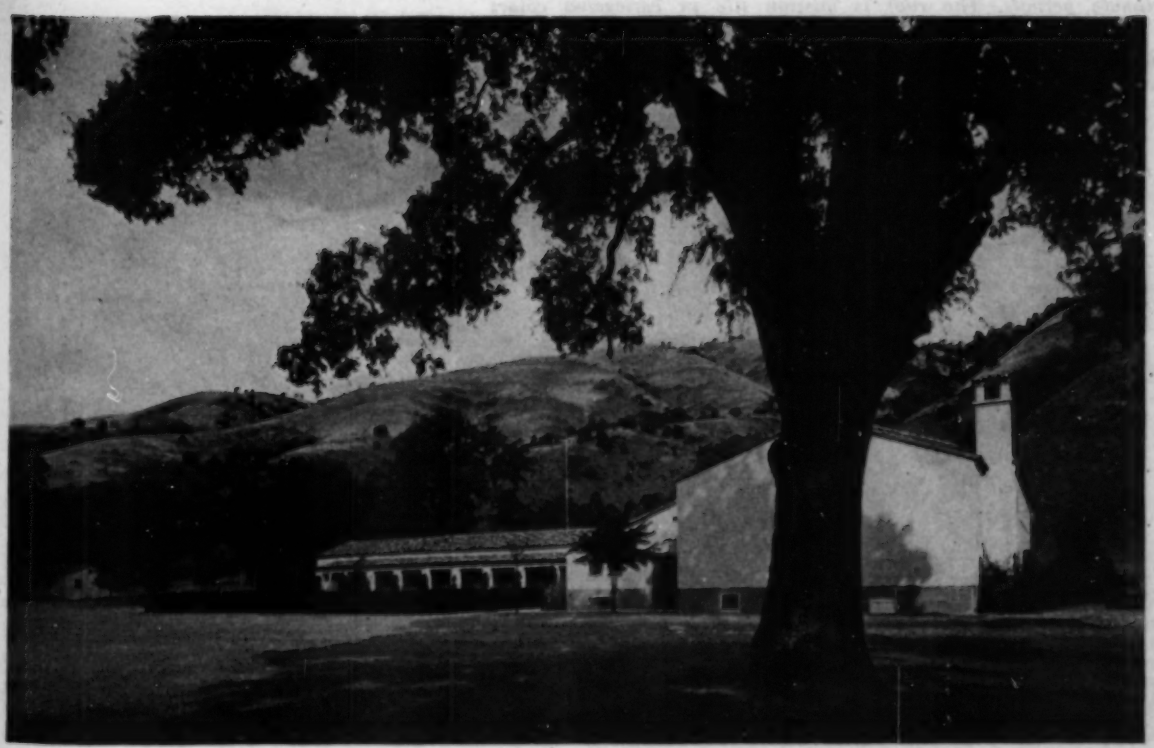
The school occupies a splendid 7-acre site at the geographical center of the school district, and all children are transported by school busses.

In its planning the school provides classrooms ample in size, each with its built-in "project" or activity alcove, wardrobe, storage cabinets, and sink. Ceilings are sound absorbing. The auditorium-gymnasium is larger than customary in order to meet the needs not only of the school but also of the community. It is large enough for evening basketball practice of local high school students who attend the district high school in Bakersfield, 45 miles away. When there is an evening community program, a play, dance, musical or lecture, the auditorium is frequently filled to capacity. A small kitchen is provided for the occasions when refreshments are to be served.

The building is of reinforced concrete construction with

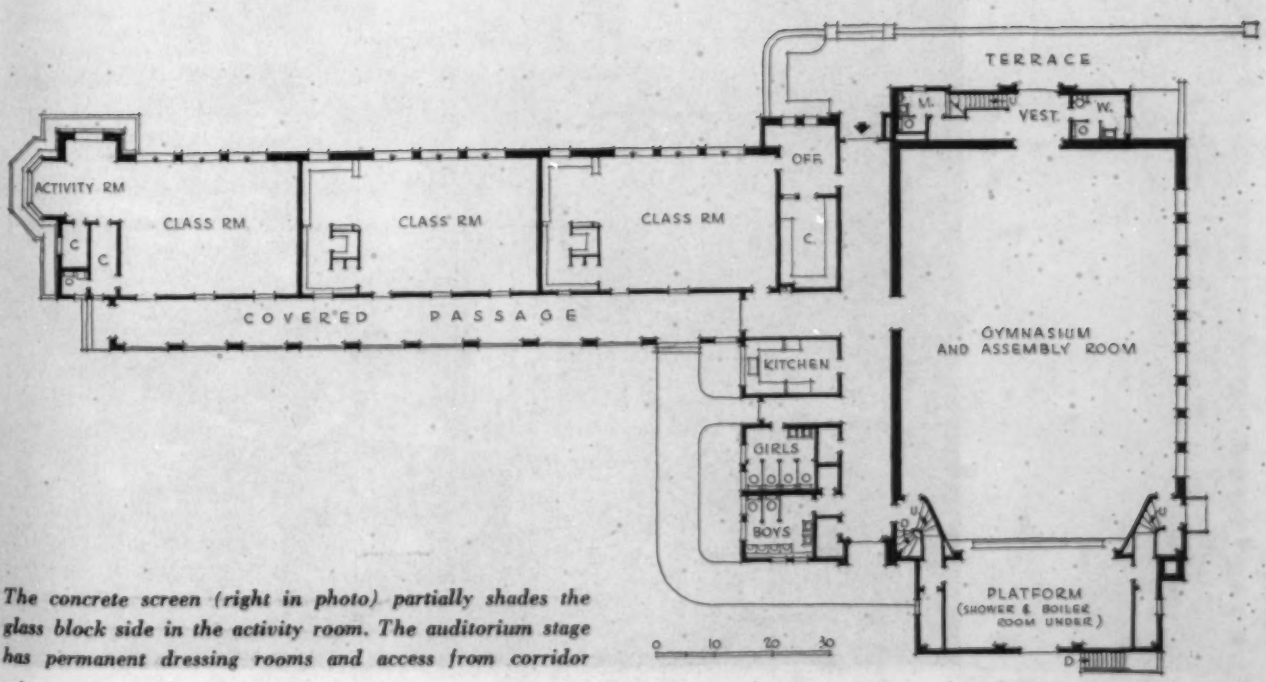
Roger Sturtevant photos

For handling community activities the Auditorium-gymnasium has its own separate entrance



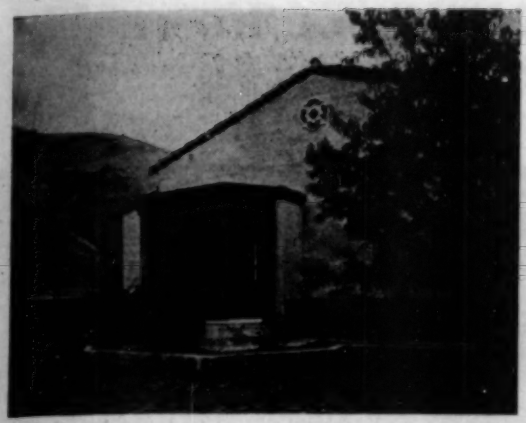
Classrooms and auditorium are approached by means of a broad covered passage, a recent design practice now prevalent in school design where moderate climate permits. The roof is mission tile in variegated colors

steel trusses over the combined auditorium and gymnasium, with wood roof purlins and rafters. As the school is at an elevation of about 4,000 ft., where occasional snowstorms occur, the building is equipped with a gas-fired boiler using both unit heaters and radiators.

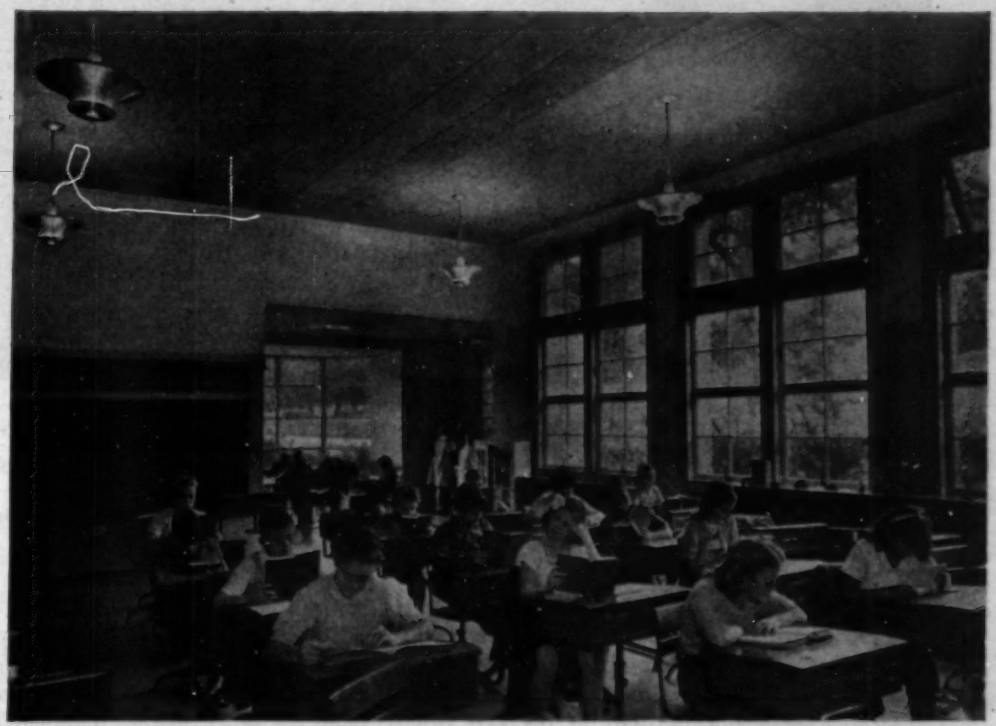


The concrete screen (right in photo) partially shades the glass block side in the activity room. The auditorium stage has permanent dressing rooms and access from corridor

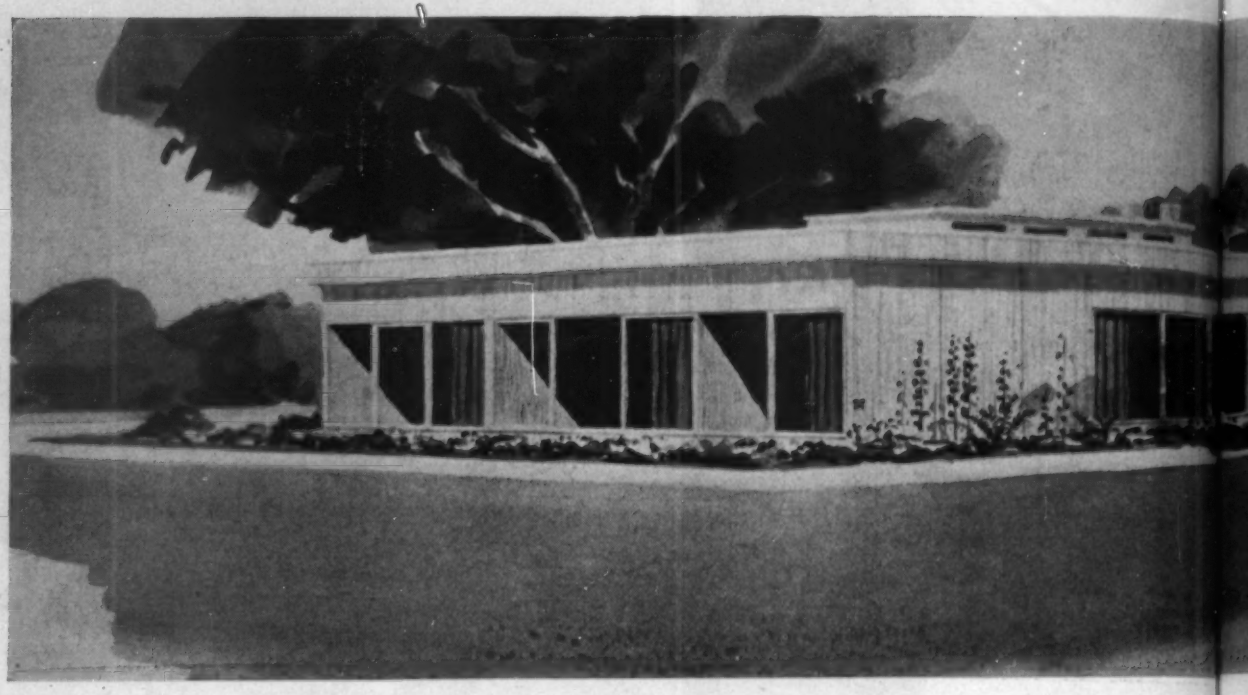
The auditorium is larger than customary for this type of school because it serves not only for the usual school purposes but also for dramatics and community activities. The maple flooring is laid on wood sleepers



Each classroom has an activity alcove or room and built-in coat closet. Classroom floors are maple, ceiling fibreboard, walls of plaster and wood sash are of the awning type



Designs for "IDEAL POSTWAR SMALL HOME"



Prize Winners in Second Annual Small House Competition of Arts & Architecture, sponsored by the United States Plywood Corporation

STIMULATING ideas on the problem of designing better houses continue to come up in each succeeding architectural competition. This competition which closed December 20, 1944 is no exception as a close analysis of the first two prize designs will disclose. The program called for a house to be designed for "the average American family—a man, his wife and perhaps one or two children" . . . "the aim . . . to uncover designs that can be built within our experience in techniques and materials" . . . "the work must represent contemporary thinking in terms of modern structural standards."

Professional advisor for the competition was Sumner Spaulding, F.A.I.A. Judges were Fred Langhorst, Charles Eames, J. R. Davidson, John L. Rex and Gregory Ain.

The first and second prizes, $1250 and $500, went to architects in Washington, D. C.: first to Lt. Charles D. Wiley, and second to Lt. (jg) Russell M. Amdal, U. S. N. R. Third prize, $250, went to Eduardo Fernando Catalano of Buenos Aires, now at Harvard University.

Five honorable mentions, each carrying an award of $100, went to I. M. Pei of Princeton, N. J.; George A. Storz of San Diego, Calif.; Robert T. Coolidge of Cambridge, Mass.; Lt. (jg) Harry Weese, who is on active duty with the United States Navy; and Janet and Milton Caughey, West Los Angeles, California.

The prize-winning design "is intended to be . . . a plywood house with a new space conception. It is not based on the principle of rooms but rather on the principles of areas and functions. In other words, the many things that were performed in the living room in the play 'You Can't Take It With You' are now given their proper space.

"The 'domestic center' . . . allows enough room . . . not only for the usual kitchen equipment, but also for ample breakfast or other dining requirements, plus laundry and sewing space . . . separating the work counter from the activities area is a glass partition that can be slid aside for direct access.

"There is an 'activity center' where hobbies, children's play and such can take place without disturbing the rest of the household. This room need not be fixed up or cleaned up to be presentable to guests because it's sort of the heart of the house and you don't have to show everybody this part of it.

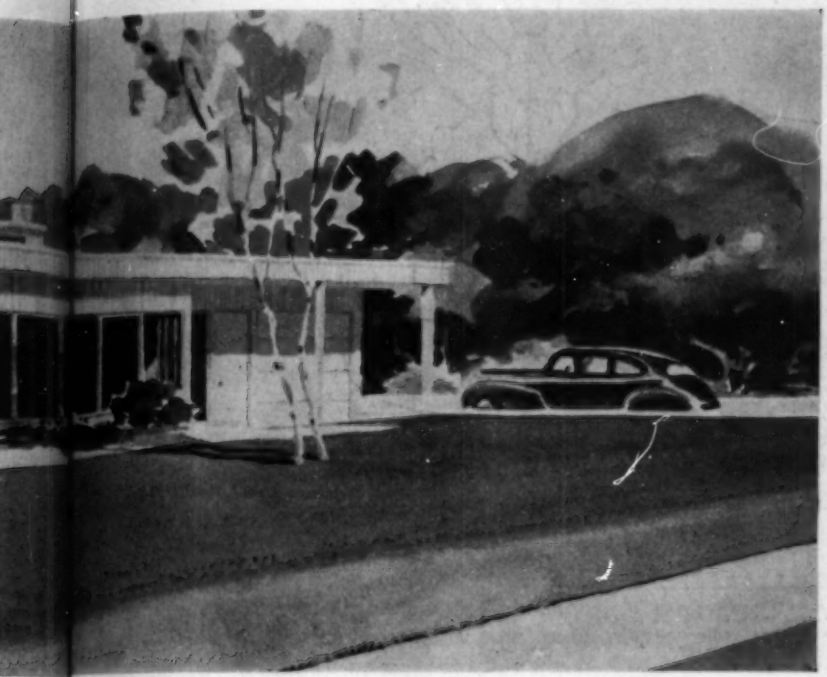
"For rest and relaxation there is a 'quiet zone.' This is a relatively small and intimate area with a fireplace and adjacent sunken terrace. It combines the present-day living room with the old-fashioned parlor.

"The bedrooms can be varied in size as required. The partitions between the rooms are cabinets 4 ft. long and 2 ft. wide."

FIRST PRIZE DESIGN

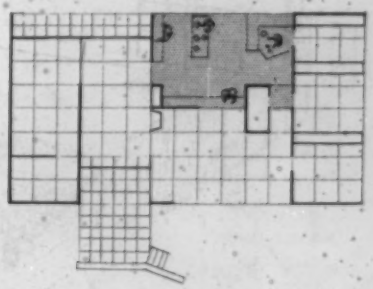
by Lt. Charles D. Wiley, Washington, D. C.

space definition for living a new division based on family life permits varied activities by all members of the family without cellular limitations

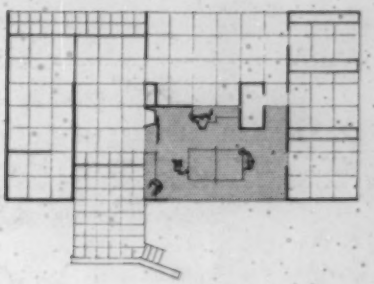


the basically needed areas are

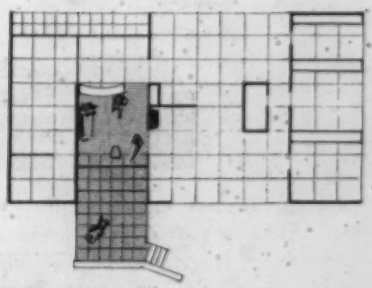
a domestic center

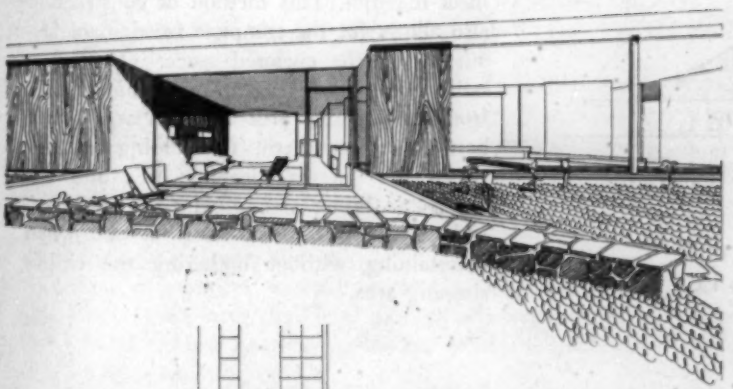


an activity center

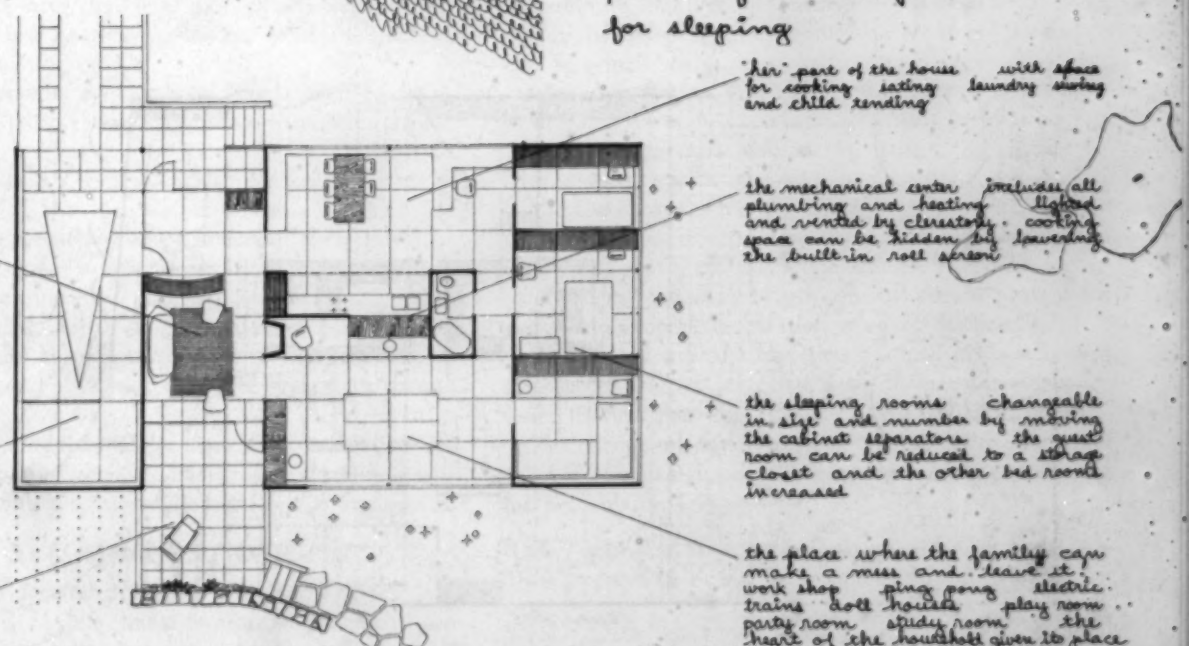


and a quiet zone



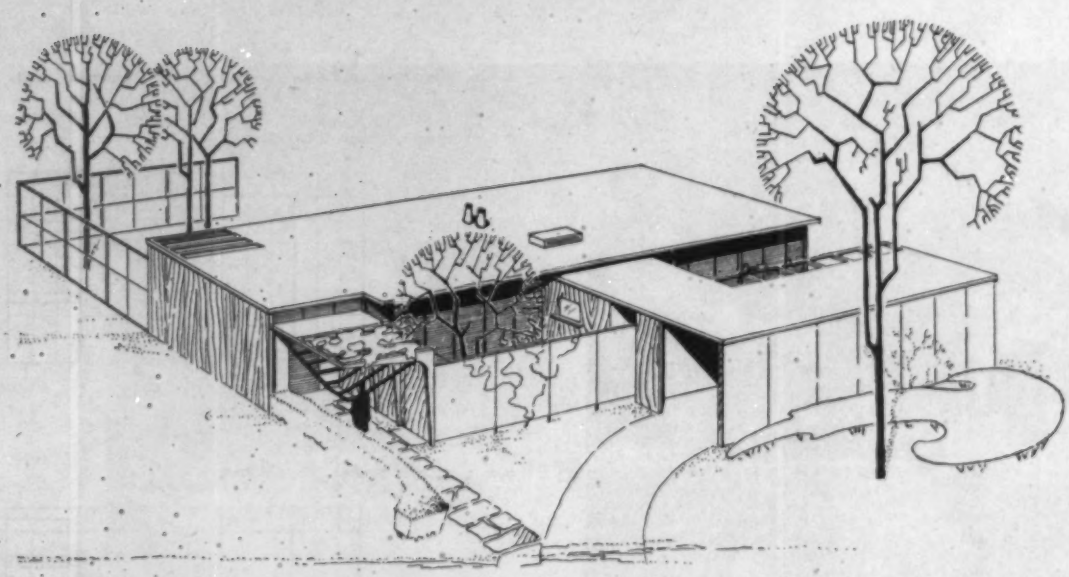


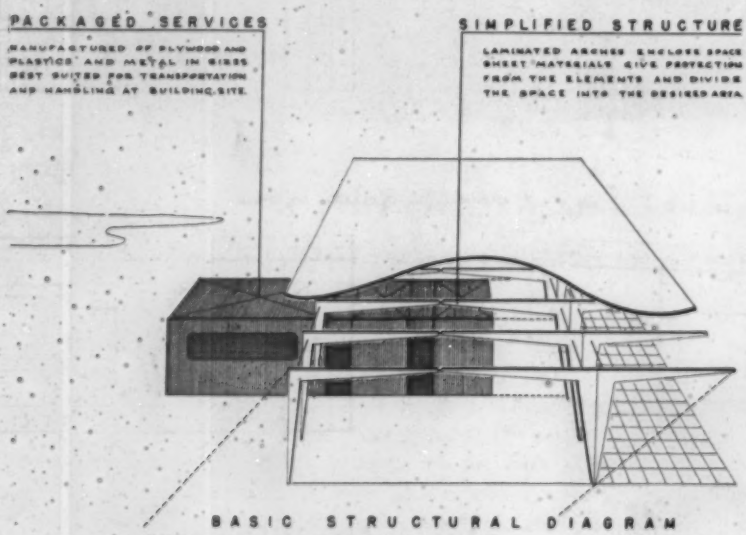
plus a flexible space for sleeping


that part of the house that is always in order used for rest and conversation has fireplace music and books
storage room for the men's chair and camp equipment
sunken terrace provides privacy and protection from the weather
the part of the house with space for cooking eating laundry storing and child tending
the mechanical center includes all plumbing and heating lighted and vented by clerestory cooling space can be hidden by louvering the built-in roll screen
the sleeping rooms changeable in size and number by moving the cabinet separators the guest room can be reduced to a storage closet and the other bed rooms increased
the place where the family can make a mess and leave it work shop ping pong electric trains doll houses play room party room study room the heart of the household given its place

SECOND PRIZE DESIGN

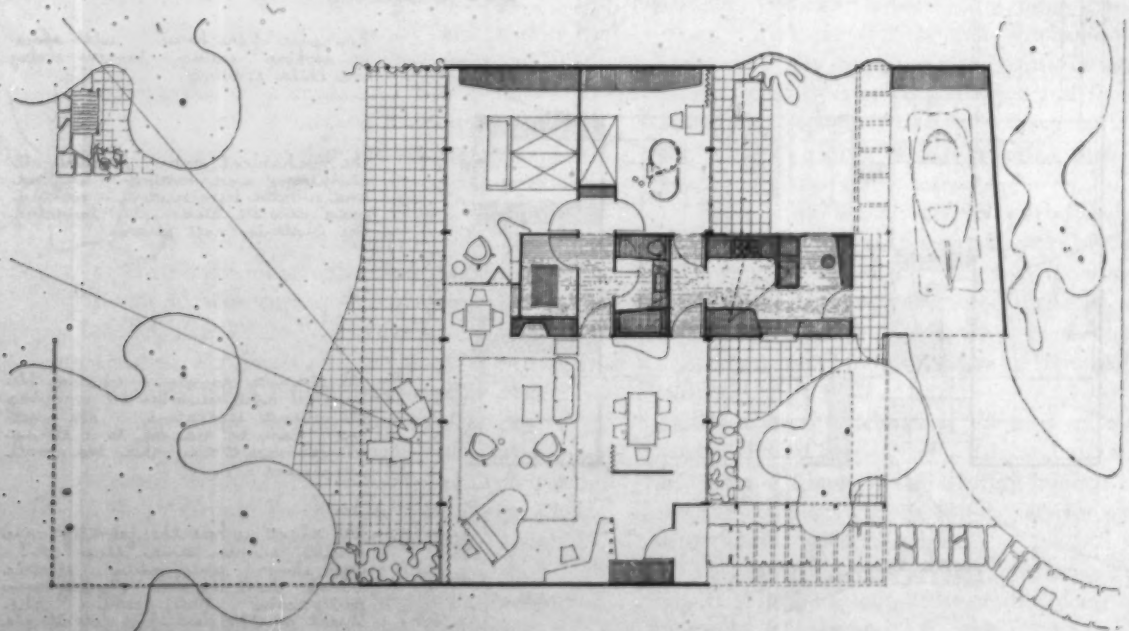
by Lt. (j.g.) Russell M. Amdal, U. S. N. R., Washington, D. C.




PACKAGED SERVICES
MANUFACTURED OF PLYWOOD AND PLASTICS AND METAL IN SIZES BEST SUITED FOR TRANSPORTATION AND HANDLING AT BUILDING SITE.
SIMPLIFIED STRUCTURE
LAMINATED ARCHES ENCLOSE SPACE SHEET MATERIALS GIVE PROTECTION FROM THE ELEMENTS AND DIVIDE THE SPACE INTO THE DESIRED AREA.

BASIC STRUCTURAL DIAGRAM

THIS design uses prefabricated basic service units in order to take advantage of industrial mass production economies. "A simplified method of construction based on the known principle of the three-hinged arch is utilized with the laminated arches 8 ft. 10 in. and 10 ft. apart to take advantage of modern sheet material. This method of construction also allows for the complete freedom of lay-out within the enclosed space. The service unit divides the living and recreational area from the sleeping area and acts as a sound barrier between them. The folding wall between the parents' sleeping area and the living-and-dining area provides for the possible use of these two areas as one when entertaining without bothering the child's sleeping area."



Comments on

STABILIZING THE CONSTRUCTION INDUSTRY

By Thomas S. Holden, President, F. W. Dodge Corporation

THE National Planning Association released to the public on February 14, 1945 its Planning Pamphlet No. 41, entitled "Stabilizing the Construction Industry," a subject which has been widely discussed within the construction industry for at least twenty-five years. The pamphlet consists of a statement of objectives, a discussion of proposed means for achieving stabilization, and recommendations for action by the federal government and by state and local governments, all prepared by Miles Colean. A prefatory joint statement by the Agriculture, Business and Labor Committees of the National Planning Association, endorses those of Mr. Colean's recommendations for federal action considered to be immediately necessary as first steps toward stabilization.

Mr. Colean recommends creation of three new federal agencies, adoption by Congress of an emergency lending policy, and creation by Congress of a commission for studying the nation's tax problems.

STABILIZATION OBJECTIVES

Mr. Colean and the National Planning Association render a distinct service by projecting the discussion on the level of the realistic and the practical.

The National Planning Association has stated in an earlier planning pamphlet that the previously held notion that the construction industry could be used as a means for stabilizing the entire economy and for leveling off the business cycle is impractical. It has set forth as highly desirable the more limited objective of timing public works to stabilize the construction industry itself throughout the year and over the years. Mr. Colean accepts this objective as premise, explaining that stabilization does not mean a uniform dead-level rate of activity, but that its aim is utmost practical reduction of fluctuations in construction activity.

The report repeats the previous "Declaration of Interdependence" of the National Planning Association as follows:

"The basis of America's postwar economy should be private enterprise, with private business and industry and agriculture the people's primary means of providing jobs and producing goods and services; with government performing its constitutional function of establishing the rules of the game, acting as impartial referee, and effecting fiscal policies through taxation and expenditure programs, such as public works, that will mesh with private undertakings."

This is the kind of stabilization the construction industry would like to achieve. The present discussion will concern itself with the means proposed for its attainment.

RECOMMENDATIONS

Mr. Colean's recommendations for federal action and those contained in the joint committee statement are quoted in full herewith (see next page).

Mr. Colean also lists nine general recommendations for action by state and local governments, covering matters so familiar that they are likely to arouse no important differences of opinion. They are endorsed in part in the following paragraph of the committees' joint statement:

"The Agriculture, Business and Labor Committees recommend that state and local governments cooperate with the federal government on policies of providing comprehensive information on construction activity, of advance planning of public works projects, and of controlled timing of the initiation of projects to meet the objectives of a stabilization program."

COMMENTS ON RECOMMENDATIONS

The discussion which follows will be confined to the recommendations for federal action.

A Construction Economics Bureau (M. C.-1, J. C.-1)*—Primary purpose of this proposal is gathering and disseminating current market data upon which private investors and state and local officials can base judgments as to timing of their projects. Such judgments, particularly in the case of private investors, are based upon local market conditions, which vary considerably at any given time; these conditions are most immediately and most intimately known by local people. Reasonable stabilization of a large sector of private building can be effected, and only so, by enlightened policies of private lending institutions. These are now being urged by the National Housing Agency and its constituent agencies (particularly FHA and FHLBA) to provide for maintaining local market statistics. These agencies have themselves a responsibility for maintaining stability in lending for housing purposes. Action by these agencies and their member institutions can be much more direct when based upon their own market information than in the case where information must filter through a centralized bureau in Washington.

A central statistical bureau can render effective service by disseminating statistics on general national trends. The Department of Commerce and other governmental and private agencies currently collect and publish construction industry statistics and economic studies. Proposals for expanding such activities by government should provide for a preliminary review in order to avoid duplication.

Any bureau with the functions outlined in these recommendations should be required to distinguish clearly between factual statistics, estimates, and economic interpretations. Economic interpretations are subject to emotional and philosophical bias and can easily become propaganda for particular programs.

A Technical Research Bureau (M. C.-2 and J. C.-2)—Opportunities exist for sound technical research by

*To identify published recommendations, M. C.-1 indicates Miles Colean's, J. C.-1 indicates the joint committee's recommendation number 1, etc.

RECOMMENDATIONS BY MILES COLEAN

The federal government should take the following steps:

1. Establish in the Executive Branch an agency for the collection, interpretation and publication of an adequate series of data to serve as a barometer of construction activity. It is to be emphasized that this would be an informational and advisory and not a planning or supervisory agency. In connection with this proposal, provision should be made for repeating the Housing Census at regular intervals and for frequent sample surveys by the Bureau of the Census covering the selected series.

2. Establish adequate facilities for technical research in construction. These facilities should cover the whole field of construction and, under the auspices of the Department of Commerce, should be organized along the lines of the National Advisory Committee for Aeronautics. In addition to its other functions, the proposed research agency should be specifically authorized to advise with state and local government on the problem of urban rehabilitation, to lend technical assistance in the development of plans and procedures, and to report to the Congress on the need for further federal participation in this activity.

3. Authorize and provide appropriations to the Federal Works Agency, the Corps of Engineers, the Bureau of Reclamation and all other federal agencies concerned with construction, for planning and acquiring sites for public works in advance of determining the time for their construction. Continue, as a policy, the making of loans for planning to states and cities as provided in the War Mobilization and Reconversion Act of 1944. Assure that at all times a full backlog of planned public works is maintained ready for contract as conditions may warrant.

4. Establish in the Executive Branch a Public Works Control Authority charged with responsibility for timing construction done directly with federal funds or through loans and grants to states, municipalities and other authorities. The Authority should further be directed to counsel with the states and localities on the timing of nonfederal public works.

5. Initiate, as promptly as is consistent with the prosecution of the war, such federal public works as are now definitely planned or as may be speedily prepared for contract, but be prepared to taper off operations in case of later labor shortages and cost increases which may result from an over-rapid expansion of private construction.

6. Provide in the Reconstruction Finance Corporation facilities for loans—or provide through other appropriate means for the expansion of credit—for all types of sound, new construction projects, including local public works, in times when normal sources of credit are not available. Provide in the same way for credit expansion in times of emergency for maintenance of industrial and commercial structures, railroads and utilities. Maintain, as a stand-by facility, the FHA insurance of home repair loans for use in similar circumstances.

7. Create a National Commission on Tax Integration to study the problem of the equitable allocation of tax sources among the various levels of government. Reduce or eliminate the applicability of the corporate income tax to real estate corporations. Permit a deduction from the personal income tax for the depreciation of an owner-occupied house.

8. Through appropriate Congressional committees, restudy the federal facilities concerned with mortgage credit, with a view to creating a unified and more comprehensive system of mortgage finance.

9. Review the applicability of the Sherman Act and the Federal Trade Commission Act to the problem of monopoly and restrictive practice within the construction industry, with the purpose of assuring freedom of competition.

RECOMMENDATIONS BY THE JOINT COMMITTEE, N.P.A.

1. Comprehensive information is essential to an understanding of the forces affecting the construction cycle and to the development of the means for guiding those forces in the interest of a more even flow of construction activity. Therefore, there should be established, in the Department of Commerce, or other appropriate agency, a Bureau of Construction Economics. This Bureau should be authorized to assemble, maintain, and publish regularly the essential series of data and should have appropriations consistent with the carrying out of this purpose.

2. To help meet the country's construction needs on the broadest and most economical basis, facilities should be provided for an extensive program of technical and industrial research. This activity should be carried on under the auspices of the Department of Commerce and organized after the pattern of the National Advisory Committee for Aeronautics, so as to represent all the interests involved.

3. Since a variable public works program must be regarded as a basic instrument of stabilization of the construction industry, the measures listed below should be given immediate consideration:

a. The agencies of the federal government that engage in construction activity should be authorized and instructed to prepare plans (architectural, engineering, legal, financial and other) and where appropriate acquire land or land rights for projects in advance of specific timing as to initiation, so that on all occasions an adequate reserve of optional projects will be available.

b. As one means of encouraging coordination of local and federal public works programs, the policy of making loans to state and local governments for advance planning of public works should become a permanent federal policy. Such loans are now provided for as an emergency measure by the War Mobilization and Reconversion Act of 1944.

c. There should be established in the Executive Branch a Public Works Control Authority which shall determine the timing of all federal construction and cooperate with the states in carrying out concurrent policies, and which shall be subject to general fiscal policy directives.

4. The last decade showed the unhappy consequence resulting from a sudden withdrawal of credit for construction enterprise. To prevent a repetition of such a disaster, the Reconstruction Finance Corporation should be specifically authorized, in time of emergency as declared by the President, to extend credit for state and local public works and sound private new construction and maintenance operations.

agencies of the federal government, to supplement research by other public and private agencies. Mr. Colean's recommendation for a single research agency to cover the whole field of construction seems impractical.

Technical research projects, to achieve results, should be directed toward quite specific ends. Research in the physical and chemical properties of materials and in construction methods must be closely related to studies of the functions and designs of particular classes of structures. Designs and functions of structures are practically unlimited in variety, ranging the whole gamut of economic, engineering, social, cultural, technical and personal needs of a complicated society, upon which are superimposed a multitude of group and personal predilections. Technical improvements in concrete construction for highways and dams have little in common with technical improvements in low-cost single-family houses. Hospitals, hotels, schools, and factories all involve special technical problems in design and structure. Adequate means exist for transmitting information as to new technical inventions and discoveries made in any particular field to other fields where practical applications can be made.

A government research bureau charged with responsibility for overall construction industry research would have to be departmentalized in order to cover all the important varieties of structures. It would require a large overhead staff for coordinating research programs and for liaison with federal administrative agencies responsible for various construction programs and with the various sectors of private industry interested in different types of building and engineering activity. Such a department-store type of research agency would almost certainly be a new unwieldy, uneconomic bureaucracy. Research programs are themselves experiments; their success depends upon the quality of personnel and of the work done far more than upon the size of organization or supposed comprehensiveness of coverage. They should be started on a moderate scale and permitted to grow only as they prove their value.

Most widely discussed need for technical research is in the field of housing, particularly the single-family house. It is difficult to see how any useful purpose can be served by linking a technical research program in this field to research in such strictly engineering matters as highways, sewers, dams, and bridges, or even with research on school or hospital buildings. Such technical research as the federal government undertakes in the housing field should be made the responsibility of one of the housing agencies of government, other federal research being the responsibility of such other agencies as are directly concerned with the construction programs in their respective fields.

In theory a consolidated research program may appear to be a potential unifying factor for the industry; it is quite improbable that it would be so in fact.

Federal Public Works and a Public Works Control Authority (M. C.-3 and 4, J. C.-3a, b and c)—With the first half of Mr. Colean's 3, which is much like the joint committees' 3a, there is no argument.

The second half of Mr. Colean's 3 recommends continuation of federal loans for planning to states and cities; the joint committees' 3b carries this a step further by making such a policy "permanent." Colean's 4, by implication at least, appears to anticipate a postwar federal program of loans and grants to "states, municipalities and other authorities," which might include advances on construction costs as well as on planning costs.

The need for such a policy in the postwar period has not been factually demonstrated, in this report or elsewhere. Such recommendations should not be accepted until the possibilities and advantages of Colean's 6 and 7 and the committees' 4 have been fully explored.

There can be no argument as to the advisability of timing federal construction projects. The proposed Public Works Control Authority should be empowered to function more effectively than the former Employment Stabilization Board, which was created for the same purpose and accomplished meager results; the Authority might properly be set up within the Federal Works Agency.

Stimulation of Postwar Federal Projects (M. C.-5)—Construction revival in the early postwar period will be limited by four important transitional bottlenecks—government controls, material supply problems, price problems, and manpower problems. Over stimulation of public construction at that time will intensify competition between public and private projects for scarce materials and skilled labor. The joint committee apparently recognized this danger and made no recommendation.

Banking Facilities for States and Local Governments (M. C.-6 and J. C.-4)—F. W. Dodge Corporation's Committee on Postwar Construction Markets recommended in its report* that a study be made to determine whether there should be provided in the postwar period banking facilities for states and local governments. Such banking facilities were supplied, in rudimentary form, in the depression period of the 1930's.

However, a recommendation for expanding the lending powers of the RFC should be accompanied by a request to Congress that it review the powers and functions of this agency and the future long-term credit needs of the country which the RFC can properly serve, and to spell out in clear and unequivocal language the future powers of RFC. This institution is in effect a capital-credit bank operating under the vaguest sort of charter and with practically no rules and regulations.

It has been this writer's view for a number of years that the expansion of the lending powers of the RFC and the creation of various other lending and mortgage-insuring agencies of the federal government represent different aspects in the modern evolution of long-term credit, much of which is undoubtedly beneficial and some of which may be potentially very dangerous.

This writer has long advocated the creation by Congress of a National Long-Term Credit Commission to make the necessary comprehensive study of all public and private financing facilities operating in the long-term credit field. Such a commission could be patterned after the earlier National Monetary Commission (generally remembered as the Aldrich Committee) whose comprehensive studies and investigations resulted in creation of the Federal Reserve System. Without a study of this scope, indiscriminate expansion of the lending powers of the RFC may lead the country into grave troubles hereafter, particularly in view of our colossal federal debt.

The writer would like to see the Congress authorize such a Commission as its major postwar project.

Tax Integration (M. C.-7)—The proposal for a National Commission on Tax Integration was also advocated

*(First published in the December, 1943 ARCHITECTURAL RECORD and later widely distributed in pamphlet form under the title "Construction Potentials.")

by F. W. Dodge Corporation's Committee on Postwar Construction Markets in its report—"Construction Potentials" (Architectural Record, December, 1943). Resolutions to effect this purpose have been introduced in the House of Representatives during the past several years by Representative John M. Coffee of Washington and by Representative Homer D. Angell of Oregon.

To the extent that such a Commission could succeed in allocating to states and local governments revenue resources adequate for financing their own legitimate public improvement needs, federal financial aid would be unnecessary and the autonomy and independence of state and local governments would be preserved, a matter as vital to the continuance of free institutions in the United States as is the preservation of private enterprise in the fields of industry, trade, agriculture and finance.

The writer regards this project as having the same urgency and importance as the one looking to creation of a National Long-Term Credit Commission, and would like to see the two proceed immediately and concurrently. It is to be regretted that the committees of the N. P. A. did not see fit to endorse this proposal at this time.

Study of Mortgage Credit (M. C.-8)—F. W. Dodge Corporation's Committee on Postwar Construction Markets has viewed this proposal as being part of its recommended overall study of the long-term credit needs of the country. (See above comment under the heading "Banking Facilities for States and Local Governments").

Monopolistic Practices (M. C.-9) — To the extent that uneconomic and monopolistic practices exist within the construction industry, they injure the industry itself and hamper its progress. It is to the industry's interest that any monopolistic practices be eliminated, though it should be pointed out that wholesale anti-trust prosecutions can be potentially disrupting and prejudicial to business confidence.

GENERAL COMMENTS

It is entirely conceivable that the long-term credit study and the tax integration study herein recommended might yield results in terms of regular flow of private and public investment funds that would minimize greatly any need for additional stabilization machinery.

The proposals of Mr. Colean and the National Planning Association are put forward on a provisional, or experimental basis. It can be pointed out that while the provisional programs of business are usually promptly scrapped if they do not achieve desired results, provisional programs and procedure patterns in government frequently tend to become permanent regardless of their value or cost. This consideration suggests caution in the creation of new federal agencies.

The writer would like to see a more definite and forthright recognition of the major role played by finance in previous construction instability. He would also point out that the nationwide reform in mortgage-banking practices effected in the 1930's went far toward eliminating second mortgages and short-term first mortgages, probably tending to much greater stability of private building activity for the future. The writer would emphasize this more strongly than Mr. Colean does.

Mr. Colean suggests that a desirable overall construction program for the postwar decade would be an average annual volume of $15.4 billion for new construction and $21 billion for all construction including maintenance. These figures are calculated at 1943 construction cost levels and are meant to correspond with the overall construction estimates of the U. S. Department of Commerce. They are apparently arrived at, not by any survey or estimate of the postwar construction needs of the country, but as a quota set for the construction industry in order that it may contribute its share toward producing a national income of $140 billions a year, stated to be essential for a satisfactorily high level of employment.

It is this writer's view that the actual construction needs of the country cannot be ascertained by assigning employment quotas or dollar-volume quotas. It is also pointed out that neither national income figures nor Commerce Department overall construction estimates are factual statistics; they are based upon factual data, but they are themselves blown-up estimates. As such they are less exact as indices of business trends than are statistical series which consist of unadorned factual data.

It is undoubtedly true that an expanding economy tends both to increased construction activity and increased national income. The two are undoubtedly connected in some sort of hen-and-egg relationship, perhaps too vaguely comprehended to be expressed in terms of a fixed percentage as Mr. Colean would like to see them worked out.

Mr. Colean proposes as a secondary criterion of desirable construction volume that which this writer would place first, the criterion of the market. Mr. Colean would have the agency charged with construction planning exercise close scrutiny of the market "on a locality basis, in order to discover signs of saturation, labor shortage (as evidenced by overtime payments and bonuses to attract workmen), inflated prices or other indications that overbuilding or overstraining of the industry might be taking place." Other specific criteria of local market conditions would include such data as figures on vacancies, trends of rentals, real estate foreclosures, budgets of local governments, and quantitative measures of adequacy of community facilities (sewers, street paving, hospital beds, school facilities and the like). Such data would probably not give far in advance exact quantitative measures of future construction activity, but, taken in conjunction with factual statistics on current activities, they would furnish reliable signals as to the soundness and probable continuation of current trends. While such market criteria do not satisfy the demands of cosmic-scale planning or long-range blueprints of the future, first-line reliance upon them recognizes the dynamic character of economic expansion and the flexible nature of the construction demand that accompanies it. The basic conflict is actually between concepts appropriate to collectivist planning and to the kind of planning appropriate to the efficient functioning of a free-enterprise economy. Mr. Colean has somewhat more faith in the efficacy of mixing the two concepts than has this writer.

In conclusion, this writer finds himself in agreement with the objectives of the National Planning Association report and with its principal recommendations. Comment and criticism have been directed at certain details which seem to merit full discussion and clarification rather than unqualified acceptance.

Mr. Colean and the National Planning Association have produced a very constructive and thought-provoking document, and their recommendations merit the thoughtful consideration of everyone in the construction industry.

Bettman Archive

BANKS

Architectural Record's Building Types Study Number 99, in collaboration with BANKING

Perhaps in no field of activity have changed methods of work caused such a striking change in building needs as in the old conservative field of banking. Awareness of this change is acute among bankers, so much so that *Banking*, official organ of the American Bankers' Association, has recently been exploring the new necessities. As a first step in the present editorial collaboration, *Banking* sent letters of inquiry to alert members of the banking profession, and *Architectural Record* arranged to have a leading architect suggest what might be done to give architectural expression to the needs which the inquiry might reveal. Another architect, a consultant with a score of years' experience in serving one of the largest commercial banks in the United States, was enlisted for a discussion of bank planning fundamentals, and both articles are presented along with plans and illustrations of bank architecture finished or proposed. Once again, the collaborative editorial idea has been used to establish a close link, this time between two of the most respected American professions.

WHAT BANKERS WANT OF THEIR BUILDINGS, by Perry Coke Smith, A.I.A.

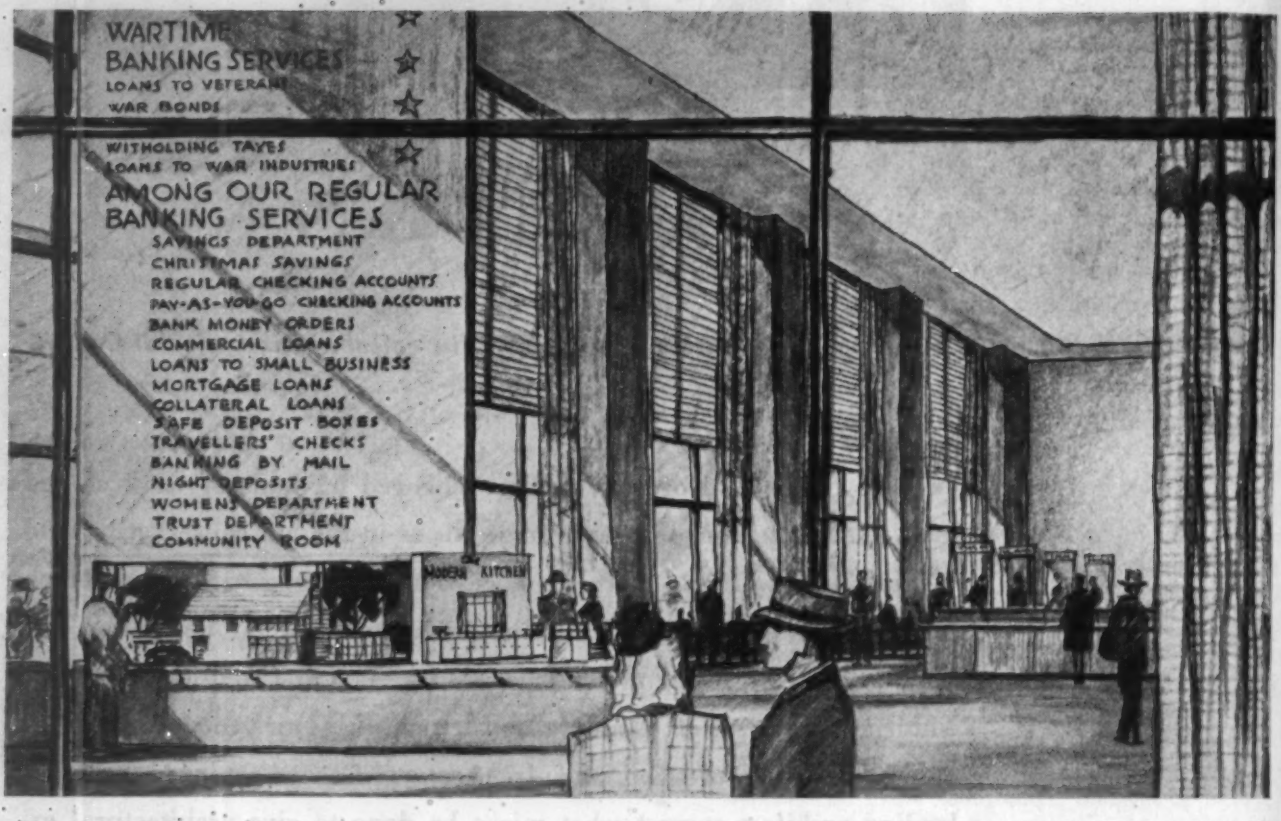
FIFTY-FIRST STREET BRANCH, NATIONAL CITY BANK OF NEW YORK,
Walker & Gillette, Architects • Aaron G. Alexander, Consulting Architect

FUNDAMENTALS IN MODERN BANK PLANNING, by Aaron G. Alexander,
Consultant Architect

WHAT BANKERS WANT OF THEIR BUILDINGS

By Perry Coke Smith, A.I.A.

of Voorhees, Walker, Foley and Smith, Architects



Open planning and open window display, adapted to the needs of banks. The list of services on the bulletin board reflects vastly expanded services being actively merchandised. Underneath is a table for display of products

Problems of building construction are not easily considered in general terms. Yet there may be some value in what follows, because a general underlying inquiry was conducted by *Banking*. Twenty-three bankers throughout the country responded by letter to the inquiry, "If you were planning a new or remodeled bank building, what results would you seek from the building in better merchandising of bank services and better public relations?"

Adding together these replies a consistent pattern is obtained of the bankers' conviction as to what the modern bank should say to the public. The writers of these letters responded freely and earnestly so that I feel, in attempting hereafter to translate these ideas into assistance in planning new quarters, that, though broad, the foundation is firm.

The first and all but unanimous idea expressed in the cross-section taken was that the bank building, as well as the banker, must get rid of the "stiff-collar and fishy eye" and meet the customer at least as engagingly as a first-rate retail store. As expressed in the letters, this conception is a natural result of the changed conditions in the business of banking. One banker says, "We have never had a banking system in this country designed for public convenience. Historically our banking legislation has been busy creating a market for government bonds, facilities for the re-discount of commercial paper, and mobilizing the productive capital of the nation. Only lately have our legislators discovered John and Mary Doe and the kids, and their need for a home and a car, an easy way to pay household bills, get cash in emergencies, start a small business, make plans for retirement and finally have their estate settled by a competent, dependable agency. New banking structures are reflecting this more modern view of the place of banking in our social structure."

All other ideas expressed in the replies seemed to serve this one central idea. They may be grouped roughly under four classifications: service, functional arrangement, visual expression and merchandising.

Under service, the first classification, these characteristics

No longer a monumental blind spot on the street, the bank opens up, lights up. The interior is the chief attraction (it is shown on opposite page)

were the ones to which the bankers gave primary mention:

1. Clear direction of the public.
2. Ample public space to avoid congestion.
3. Special facilities for cashing payroll checks.
4. Drive-in teller facilities.
5. Ladies' retiring rooms.
6. Conference and meeting rooms for the public.
7. Carefully considered air conditioning, sound proofing and lighting.

As to functional arrangement, the second point, the location of the Loan Department received almost primary attention. All but one of the replies mentioning it wanted this department separated from the main floor functions so that customers could conduct this business in private without embarrassment. Most thought it should be on another floor. One suggested associating it with a Savings Department in a separate section on the main floor so that these combined departments could be kept open from 8 A.M. to 5 P.M.

Besides the location of the Loan Department, the Safe Deposit Department was a poor second for attention. Those mentioning it called for its association with the Trust and Bond Departments.

Every letter agreed on the third point, "visual expression," which we describe more simply as—how a bank should look. Our new bank must be open, friendly, warm and un-imposing; a minimum of obstructions between the customer and the bank's representative who serves him.

We now come to point four, merchandising. The letters agree that the banker must merchandise his services as vigorously as the retail merchant. Naturally good service, good functional arrangement, and visual expression all contribute to sales. Specific, direct merchandising devices mentioned beside personnel training were window displays and interior exhibits.

To sum up, the characteristics of modern banking business, as expressed by bankers themselves, are quite clear. The modern bank must promote a wide variety of services involving relatively small transactions. Many of these services are newly competitive. Practically all of them must be performed on the bank's premises by personal contact. In this it is like retail merchandising — the banker must make clear to the public what he has to sell and why it is advantageous for the customer to buy; and then to make it easy to close the transaction.

Retail merchandising has always operated on these principles and has the technique because its housing has had a long and progressive development. With banking, this is not true. As I recall, up until 1929 or later, the banker was still enthroned in his august temple granting his favors reluctantly. Therefore in designing banking quarters not only must the changed character of the business be considered but public prejudice must be overcome, and for every new bank that will be built in the next ten years there are dozens standing with their too-enduring treatment of marble and bronze, saying to the public what the banker doesn't want to say.

For these reasons, I approach the task of suggesting what to do about bank buildings with considerable and respectful caution.

To begin, I wish to state my own opinion of the order of importance the characteristics mentioned in the letters received. To make anything of this general and difficult problem I must, I feel, extract what I consider fundamentals as related to their forcefulness in terms of architectural expression and offer merely a general advice.

First of all comes the exterior. Many of my brother practitioners, at this point if not before, will leave the audience, saying that functionally designed space, honestly enclosed, will speak for itself. This is true, but, nevertheless, to meet the modern bank's merchandising problem we must start our planning outside.

In order of importance after the exterior comes, second, facilities for display; third, clarity of arrangement. fourth, comfort in conduct of business.

One banker, replying to *Banking's* inquiry, made an interesting observation. He said that he had been told by two top-flight merchandising men that a bank building is a definite deterrent in a retail merchandising district. Both men are engaged in chain store merchandising and both refuse to rent quarters in the same block with a bank. The banker said that after having been told this he noticed specifically that pedestrian traffic in front of his bank was a fraction of that on the other side of the street.

New departments for new customers are here shown clearly marked, well arranged, comfortably furnished. Below: "open planning" in an early San Francisco bank

Bettmann Archive

To my mind this does not add up if you consider it only on a population basis. A bank, I would guess, has as many customers and employees per business hour as a top-grade jewelry store or book store occupying an equal ground area. Therefore, it would seem to me that this condition is due to the short hours of banking business, the large number of holidays and its appearance in a city block. As to appearance, the bank attends the merchandising party in a stiff shirt and striped pants and the boys move over to the other side of the room where the atmosphere is more congenial.

So I think this is the first thing to fix. I honestly cannot even attempt to evaluate the drawing power of a facade of any kind. But I do believe, that for a bank to take its desired place in a retail merchandising district, in a small town or big city, its exterior must excite interest. That is why the retailer spends time and money modernizing his "front" and dressing his windows.

Now, what are the visual techniques for exciting interest? They are considered to be illumination, color and movement as the stimulating characteristics and subject matter of personal or human interest as the holding characteristic.

Applying these principles to the exterior expression of a bank, we come up with large clear openings showing a colorful and well-lighted interior, filled comfortably with people, happily transacting their business. This, of course, is a simple answer, well understood at present by bankers and architects alike. I think that it is undeniable as far as it goes but I should like to carry it further. It seems to me that the most important idea of all, expressed in several of the replies to *Banking*, was concerning displays or exhibits of public interest. The best merchandising procedure that a bank can follow (aside from proper personnel-customer relations) is to cause the customer and prospect to understand the nature of the services rendered by the bank. Banking in the past has given itself an esoteric atmosphere which is a standard step in inspiring awe.

Suppose then, that we design a bank whose principal street front is occupied by a large space through which the bank is entered with clear windows on the street. In this space are maintained displays and exhibits skillfully designed and frequently changed. This space could become the center of information on commercial activities and enterprise, as well as the means of informing the customer of what the bank does and what it sells. This display space could be kept open beyond banking hours and on holidays. I am sure that the bank's commercial customers as well as the bank itself would find such display to their benefit.

The exhibit area would be separated from the bank by glass so as to segregate it from the banking space during off hours. Skillfully planned, the bank's services could be spread out for easy recognition and access. This space would be a not-too-hurried introduction to the bank and its services.

Let us assume that this general idea would produce an interesting facade showing light, color, and activity during retail business hours, would serve to explain the activities of the bank and index them.

There may be other ways to design a bank so that its exterior and immediate interior character have merchandising force in appearance, and provide opportunity for display. I would like, though, to let this example stand for what it is worth, and go on to the subject of clarity of arrangement and of comfort in conducting business.

In a retail store, clarity or simplicity of arrangement is not so necessary as in a bank. Once a customer is in a store, it is an advantage to have him (or, better, her) wander through the merchandise display, gradually losing sales resistance. Without tangible merchandise to use, the bank must do this job by means of the displays or other expedients. Once the customer is in and the desire to purchase is planted, the going should be smooth and easy.

To achieve this there is no good substitute for direct vision and openness, to which signs are only an aid. I believe the activities most clearly seen and easiest of access should be those involving the greatest proportion of new business.

These services should step forward and shake hands. Routine repetitive business can well be conducted at some distance from the entrance, provided access is clear and accommodations adequate.

Comfort for the customer in conducting business is partly achieved by what has already been mentioned: ease in finding where to go. To this must be added other things, the first of which is good lighting. If I had to choose between good lighting and air conditioning, I would take the lighting. Next is sound control and third is air conditioning; but more and more the bank of the future must have all of these things.

Gottscho-Schleisner photos

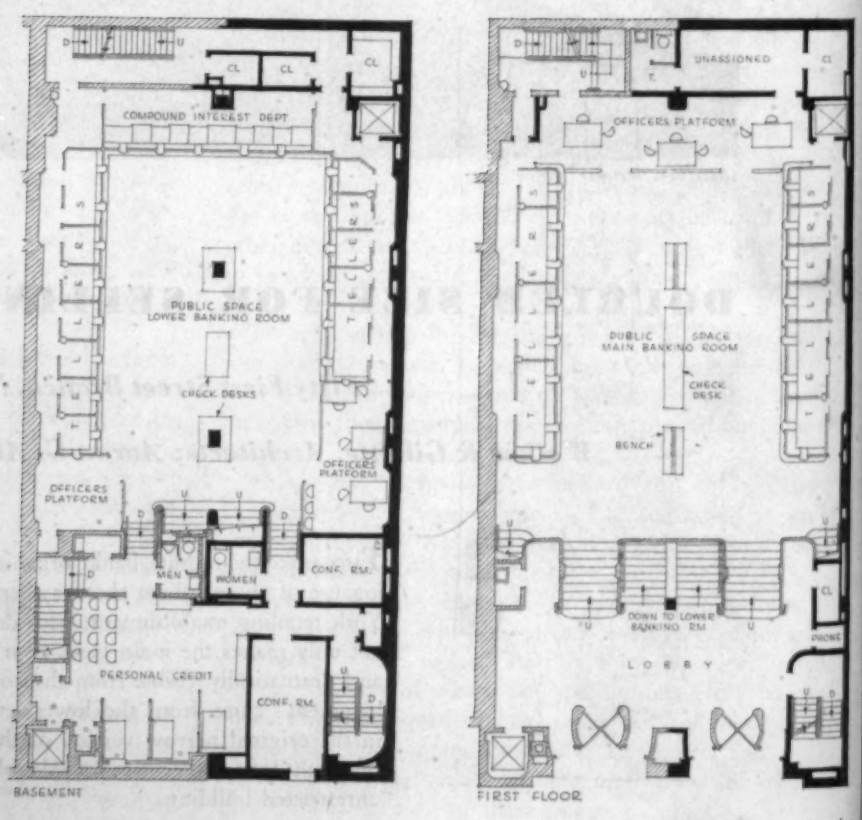
DOUBLED SIZE FOR SELLING SERVICE

Fifty-First Street Branch, National City Bank of New York

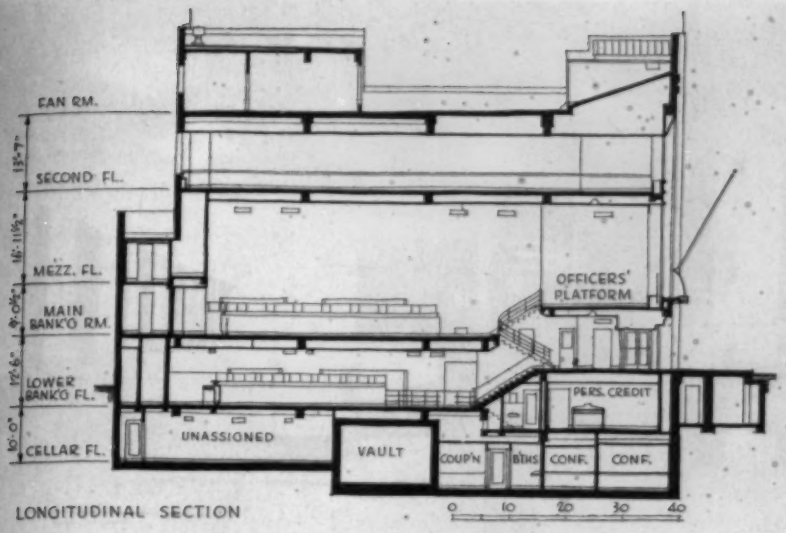
Walker & Gillette, Architects; Aaron G. Alexander, Consultant Architect

THIS up-to-the-minute bank, organized like a department store, makes striking use of an expedient that has been brilliantly successful in a leading New York retailing establishment. This device is the split-level arrangement, which not only makes the main bank floor and the lower bank room both instantly and dramatically visible from the entrance, but also takes away the "bargain-basement" curse from the lower level. Although the idea was incorporated in the original narrow version of the building, it did not come fully into its own until the structure was doubled in width during the last months of unrestricted building.

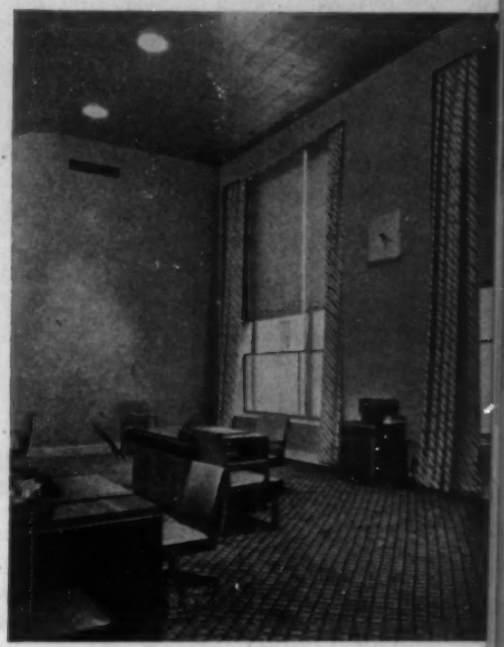
Above: three levels in a single view. The lower level is devoted chiefly to payroll and special checking service; the upper one to the regular customers of the bank. The mezzanine containing the officers' platform is above the ceiling seen in the foreground



Plans show lower banking floor (left) and upper, main floor in plan to right.

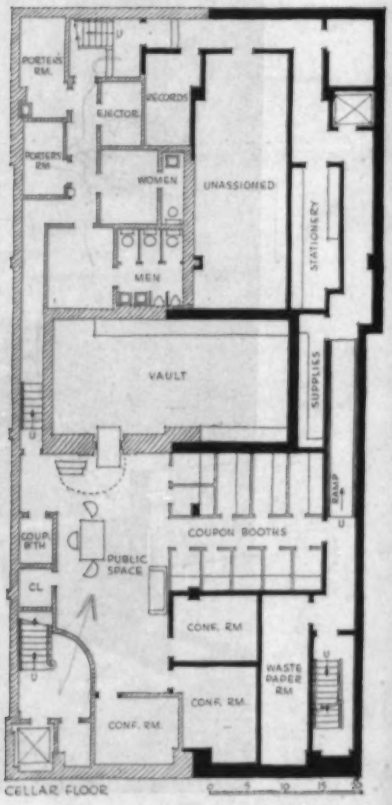


LONGITUDINAL SECTION

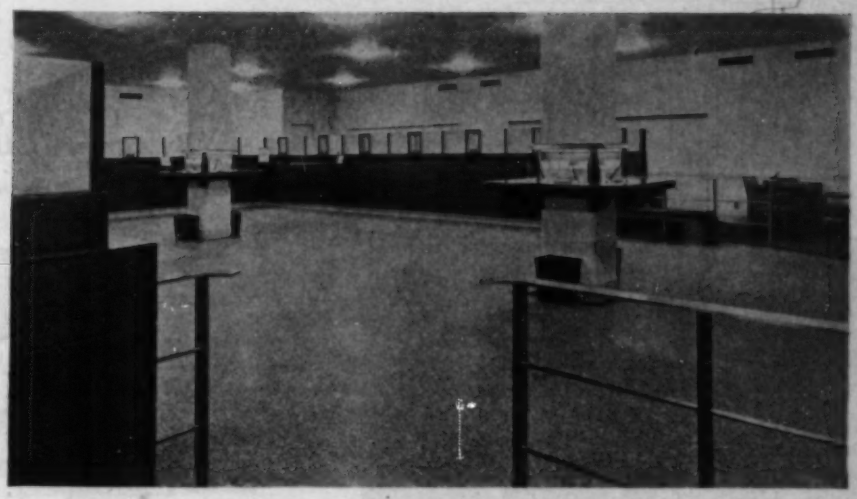


The building section, above, helps visualize the unusually clear separation of departments. Photo, below, of main banking floor shows the highly ingenious placing of officers' platform, its dignity indicated in view to right

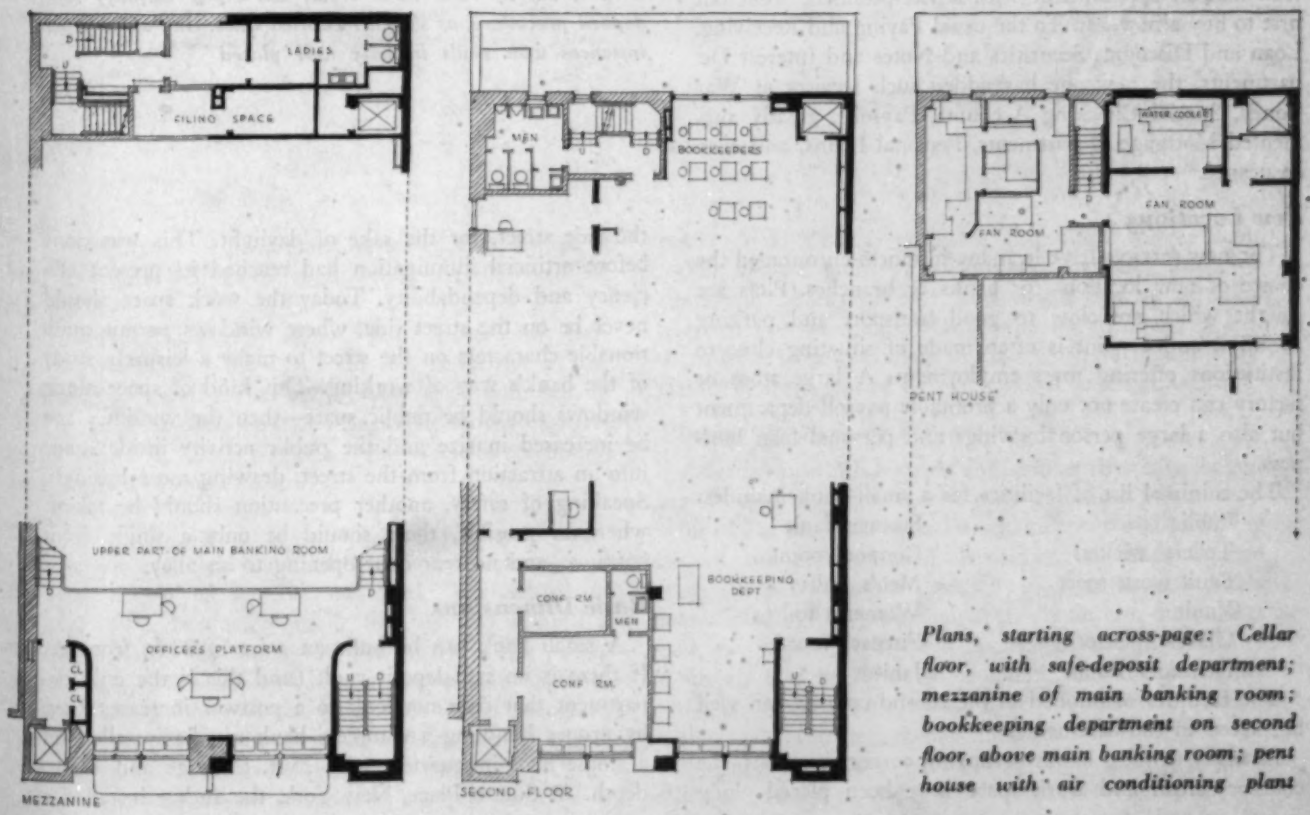
Above, full-width completed lower floor; below, the original half-plan. Note low ceilings, permissible here, in contrast to dignified height of main banking room above. Light-toned floor and walls reflect light. Fixtures "spill" enough across ceiling



Plan, right, shows a modern safe deposit department, on the floor below the lower banking room. There are three carefully sized types of customer's facility: small, individual coupon booths; larger booths, and conference rooms for several people



All views on these two pages reveal the basic simplicity and unpretentiousness which make the new crowds feel at home in bank quarters. View above shows lower banking floor looking toward the rear. View at left is of the protective screen of the safe-deposit department. The vault, as shown in the plan on the opposite page, is in the preferred position, not in the banking room but on a lower floor and built entirely in interior space



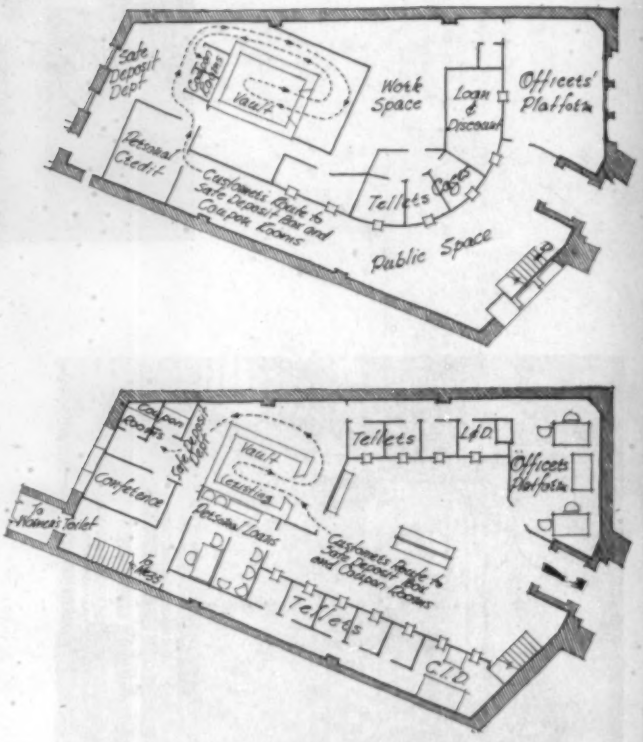
Plans, starting across-page: Cellar floor, with safe-deposit department; mezzanine of main banking room; bookkeeping department on second floor, above main banking room; pent house with air conditioning plant

FUNDAMENTALS IN MODERN BANK PLANNING

By Aaron G. Alexander, Consultant Architect

Rowe photo

Old arrangement piles crowd behind entrance



All plans on these two pages show remodeling of branches of National City Bank of New York, by the author. This Ridgewood branch was changed to give the public far more space, keep it out of bank work areas, and vastly simplify safe-deposit procedure, as shown in dotted lines. One of very few instances with vault initially well placed

Crowds are the main reason behind changed bank plans. People are coming into banks who never used to come before; and bankers are doing all they can to bring these new people in. The newer bank services are designed to serve everyday needs. The bank of today, like the store of today, thrives on a greatly increased number of transactions of decreased unit value. Gone is the day when a big-city bank might confine itself to depositors able to carry a thousand-dollar minimum, and when a customer who had an appointment with a vice-president went out first to buy a new hat. To the usual Paying and Receiving, Loan and Discount, Securities and Notes and Interest Departments, the new age has added such services as War Bonds, Special Checking Accounts, Payrolls, greatly augmented Mortgage Departments, Personal Loans, and even Insurance.

New Locations

The new services have in many instances encouraged the choice of new locations for banks or branches. Plots are sought which are close to good transport and parking facilities, and a point is often made of situating close to institutions offering mass employment. A large store or factory can create not only a profitable payroll department but also a large personal savings and personal loan business.

The minimal list of facilities for a small bank includes:

Public space	Storage vault
Tellers' wickets	Coupon rooms
Bank work space	Men's toilets
Vault	Women's toilets
Officers' platform	Furnace room
Directors' Room	Janitor

The facilities mentioned in the second column can well be placed in the basement.

In many existing banks occupying corner situations, the counter screen and work space have been placed along the side street, for the sake of daylight. This was done before artificial illumination had reached its present efficiency and dependability. Today the work space should never be on the street side, where windows permit questionable characters on the street to make a leisurely study of the bank's way of working. This kind of space along windows should be public space—then the windows can be increased in size and the public activity inside made into an attraction from the street, drawing more business. Speaking of safety, another precaution should be taken: whenever possible, there should be only a single front entrance, and no rear door opening to an alley.

Basic Dimensions

A small bank can be built on a lot of 20-ft. frontage. If there is no safe-deposit vault (and this is the only department that does not look to a postwar increase) then by proper handling a complete bank can be installed on a single floor in quarters with 25-ft. frontage and 125-ft. depth. At Sutton Place, New York, the author installed a

complete bank in an area 40 by 45 ft., by using a basement and a balcony type mezzanine.

Set dimensions in the width of the bank include: (1) A passage behind the tellers' cages, 2 ft. 6 in. (2) The cages, usually 6 ft. deep. Payroll cages have been designed by the author as shallow as 4 ft. 6 in.; at the other extreme, "C.I.D." or compound interest department cages have to be 8 ft. deep to allow for the "tub" and are therefore usually placed in a separate line. (3) Allowance for screen construction, 6 inches. (4) Public space, what is left. In the case of 25-ft. frontage, allowing 1 ft. 6 in. for wall thickness (one outer wall, one party-wall), we have left approximately 14 ft. 6 in. for public space. The bank platform for officers can be about 10 ft. wide—in other words, the line of the counter screen is continued in the form of a railing. A length of 20 ft. will allow for three desks.

The frontage generally allowed for each ordinary paying and receiving station is 5 ft.; this is set not by the bookkeeping requirements but by experience with line-up requirements of customers. A loan and discount cage requires about 8 ft. of frontage. (See Time-Saver Standards, pages 117 and 119, Ed.)

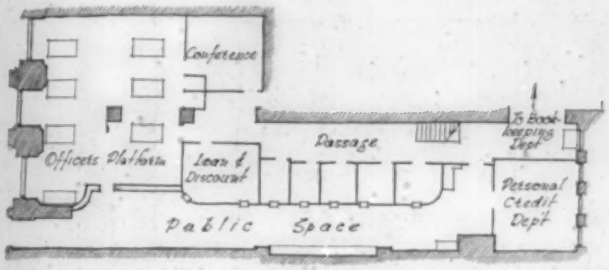
Public Areas

These must be laid out with the new customers, and the new *kinds* of services in mind. The school of thought which made the public find its way around a banking "island" is thoroughly out of date. The *public has to occupy the center* and have a clear view to facilities surrounding it; moreover the crowd has to have room to "mill around." There is no good way of forcing a customer to fit his errands to a theoretical "flow line."

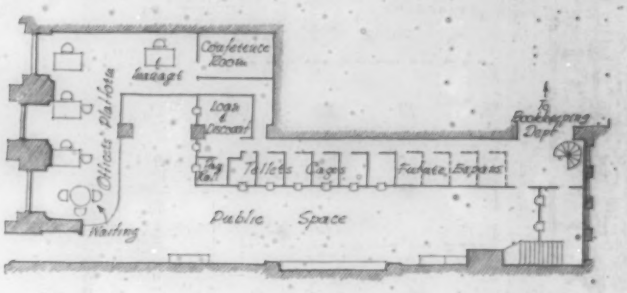
New customers create a special plan problem. Quite naturally, some bank designers have placed the desk of the "new business" officer close to the entrance where it could be seen at once; but unless this is carefully handled it creates a bottle-neck of hesitant and sometimes bewildered newcomers directly behind the door and in the way of those who know where they are going. It is necessary to draw off this new-business crowd to one side, as shown in accompanying examples.

Line-ups should never be longer than 10 customers. The shortest line-ups are at the loan and discount window, which is correspondingly placed in front. The longest occur at payroll windows and at the C.I.D. windows. Where these two departments are not placed on a separate floor they are best located together toward the rear of the public area. Corner positions also allow longer lines.

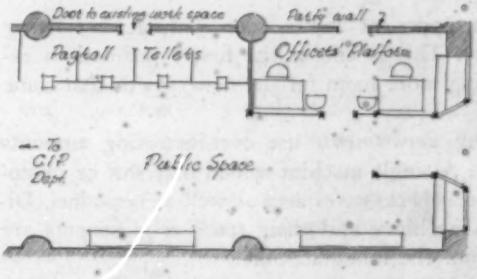
The officers' platform belongs well forward, where officers may readily be seen, and where they in turn can keep an eye on things. One of the requirements is that there be a teller's window in easy reach so that new accounts or loans can be opened without lost motion.



City Hall Branch. Public space 6 ft. 6 in. wider as result of narrowed passageway, reduced cage depth, relocated stairs. L in public space draws "new business" crowds away from door



into quiet dead-end. Payroll window situated at corner permits longer lineups. Work space is moved downstairs with directors' room, rest rooms, and vaults



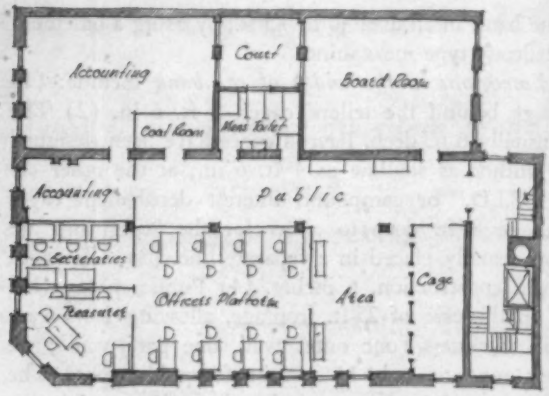
An ingenious solution by Mr. Alexander for gaining a new payroll and special checking bankroom in a narrow adjoining store. Door openings cut through party-wall connect new cages with existing work space, eliminate need for new passage. Papers and money are passed through small safety-gates in doors

Placing the Service Departments

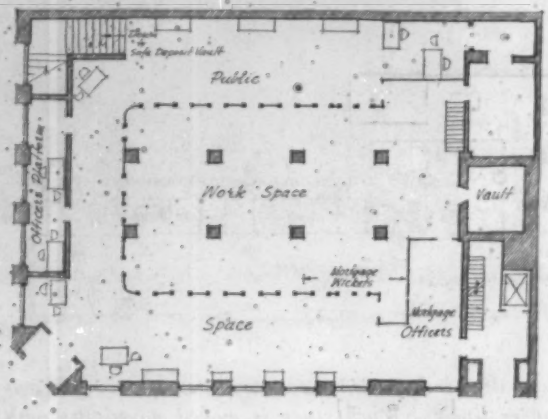
Personal loan departments and similar new departments are situated in very different ways according to the character of the bank clientele. For example, in a silk-stocking district the personal loan department is more secreted from the general public than it is likely to be in a purely manufacturing or industrial area. Again, in the former case, no payroll department is needed; but in the latter quite an area must be so assigned, and the possibility must be explored of getting large employers to stagger their pay-days to help spread the load.

Mortgage and trust departments which have traditionally been placed in the general teller area can be moved

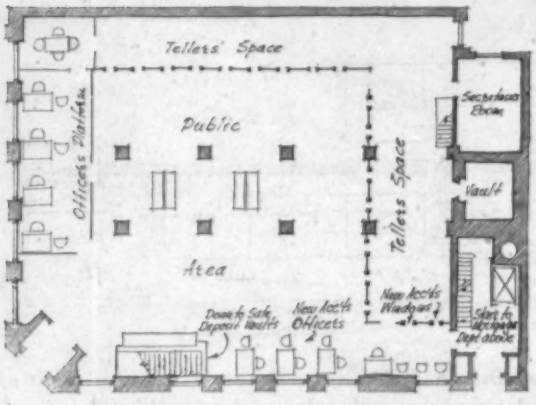
Showing changes now under way in a savings bank in a city of well over 300,000. Huge gain in public space and convenience by eliminating bank "island" and moving mortgage department plus work space upstairs. New account officers and patrons, placed out of way of traffic, have two individual wickers and a separate exit



New second floor



Existing plan



New first floor

bodily to an upper or lower floor without interfering with efficiency. This is one of the first expedients to explore in finding more room for the new crowds that come into banks.

Bookkeeping departments use ever-increasing amounts of machinery. A single machine which may sort or photograph or cancel checks saves area as well as personnel. Dimensions of machines and their space requirements are obtainable from the manufacturers.

The safe deposit department should be so planned that the banker can sell security to his client not only while the client sleeps but while he is in the bank examining his worldly goods. Give him a properly sized coupon room, one into which he can bring his partner or lawyer, one with sufficient light to permit reading the finest type, and properly ventilated.

New Personnel Requirements

We should look into change of personnel. Today, we have an increase in female help, necessitating additional rest-room facilities. Also, many banks find it advantageous to maintain a lunch room, or at least lunch space. Personally, I think these items are here to stay, and the wise banker will incorporate them in his new postwar quarters, since they pay dividends in labor relations.

Planning for Expansion

Vaults badly placed are one of the chief obstacles to expansion. However nice it is to have a vault in the middle of the first floor, where everyone can see it, this will stymie changes. The vault of today, with its steel lining and reinforced concrete built to meet No. 10 insurance rating, should preferably be located in the basement; and if there is no basement, then the vault should be placed to one side, so that expansion will not involve the terrific expense of tearing out the vault. If there is a safe-deposit vault, it must be accessible to the public without the need for crossing the work space of the bank. The accepted safe way of providing extra protection is to build the vault as shown in accompanying drawings, with a space between the vault wall and the outer wall, and a mirror at the corner for two-way vision.

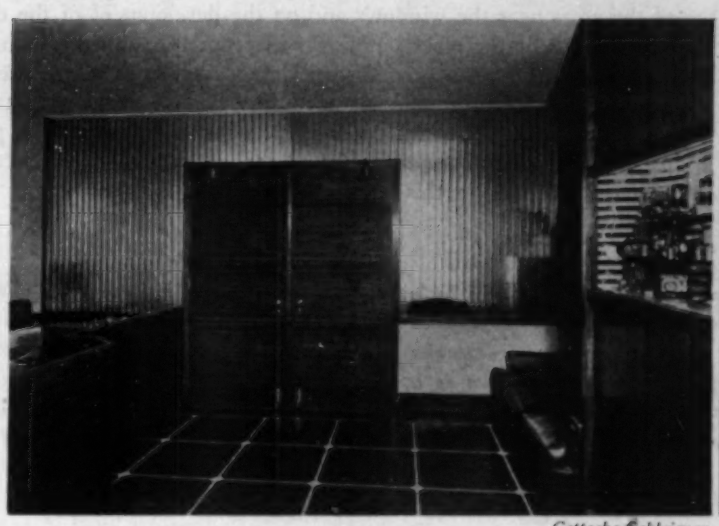
Materials, Equipment, and Styling

Just a word on the future prospect in materials, equipment, and styling. First of all, the banker must look forward to such items as air conditioning and new lighting as a vital part of his new plans or alterations. The machine age will bring out many new devices in the "machine room" and elsewhere. New metals and plastics will be available, especially as trim and finishes on floors, counters, walls. At the same time, a note of caution is to be sounded about abandonment of proven materials which happen to be old. For example, a material such as marble should not be blamed for an appearance of obsolescence which really attaches to a style and not the material. Any close study of a great building tradition such as the Italian will reveal that marble need not be "cold" but can be so handled, by proper choice and design, as to create an effect of utmost warmth, depth, and beauty.

In conclusion, the bank in the future will undoubtedly often lean toward the modern in design, for the same reasons that other merchandising establishments do; but it should retain dignity and an effect of reliability.

MODERN OFFICES

This study presented also to office building managers through the collaboration of the editors of Buildings and Building Management



Gottscho-Schleisner

Henry Zimmerman and Hans Weiss, designers. Other photos, page 116

NEW TRENDS IN OFFICE DESIGN

By L. Andrew Reinhard and Henry Hofmeister

WHILE the office buildings in our skyline look almost exactly as they did a dozen years ago, when new construction virtually ceased, they do *not* look the same inside. The American business office, which once ran to a pattern of standard partitions, standard color schemes, standard furniture, has thrown the pattern away and "galloped off in all directions."

The modern office is brightened and enlivened by dozens of new materials, both structural and decorative; by new forms and curves; by modern lighting and air conditioning and acoustic treatment and office machinery and conveniences of many kinds. By all of the devices and arts of modern architecture, decoration, furnishing and display. This trend may have brought harrying problems to office building managers. But it has also improved the effectiveness and efficiency of the office.

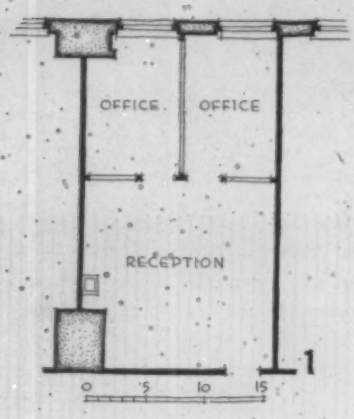
The trend is already pronounced, in spite of wartime difficulties and restrictions, and promises to be really important after the war. Perhaps in many buildings it is scarcely visible at all, since wartime crowding overshadows everything else. Even so, these are days of tenant changes and expansion and moving, and each shift brings a new consideration of office layout and design.

While the improvement of office space is a perfectly natural trend, based simply on the typical American desire for progress, there are some special factors right now.

One is that office buildings are crowded, top-quality space is at a premium, and room for expansion all but impossible to find. Government bureaus have absorbed much office space. War production has expanded business offices. Also, normal business expansion must have been a factor gradually increasing occupancy since any quantity of office space has been added to the market. Office building managers seem to be looking forward to good renting years ahead.

Now some buildings in New York are getting rid of short-term leases, choosing the good leases they want for longer terms, and generally consolidating their good market. In such a situation tenants are forced to look ahead, and many are called upon to establish new quarters. Rockefeller Center is full to the bursting point. In the "midtown" section, the Empire State Building is enjoying a rental boom, particularly in lines of business that expect expansion—chemical industries, export and import lines, and merchandising offices in general. This building probably marks a high point in the trend toward a selling atmosphere in office space.

Another factor is that tenants are prosperous; they have the means to do their offices as they



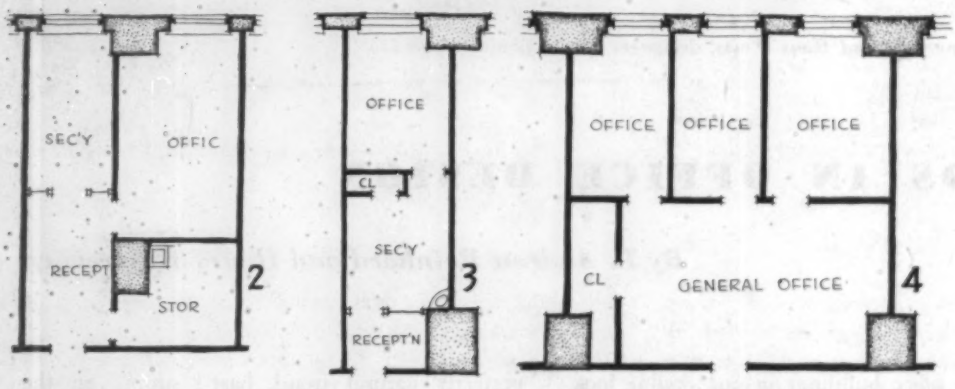
PATTERNS IN OFFICE PLANNING

SPACE in office buildings being a fairly expensive commodity, its economical use is now, as always, the first objective of office layouts. In spite of improvements in lighting and air conditioning, daylight is still the measure of value within a certain space, and the success of an office plan depends largely on the proper allocation of the areas near the windows and on the development of the darker space nearer the corridor. If the office building was properly planned, (with windows and columns so spaced as to permit partitioning every 8 or 9 ft.), the handling of areas near windows is a simple matter. Then the office planner's task centers around ideas for making the best possible use of interior space. The plans on these two pages—*all by Reinhard and Hofmeister, architects*—were selected as examples of effective planning in this respect.

1. The "T" office is still the theoretical unit for office building space in normal use—two small private offices, with the inside space used for a combined reception room and general office for secretaries, salesmen, etc.

2. Something a little better than the "normal" is possible when only one private office is required. Then the reception room is a separate entity, the storeroom hides unsightly equipment, and the secretary gets daylight

3. Here is the minimum office for one man and one secretary. This might be regarded as a module for office space; it is usually 8 or 9 feet wide, and represents half of a typical bay of 18 ft. width and 25 or 27 ft. depth



4. In Rockefeller Center the architects chose 27 by 27 ft. for the typical bay, providing the same basic module width of about 9 ft., and giving some added flexibility in the placing of partitions along the piers

(Continued from page 99)

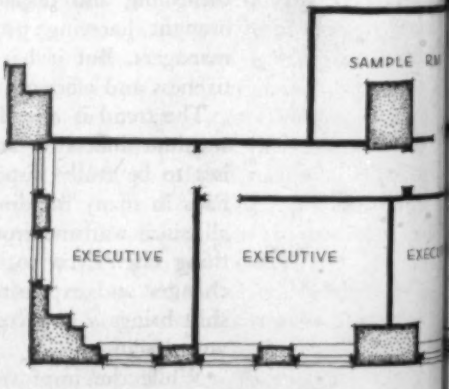
may long have wanted them. Then too, of course, they are looking for chances to plow money back into investment in any legitimate way that tax laws permit.

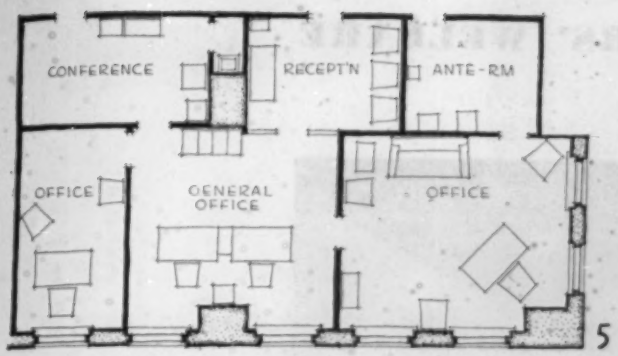
Along this same line, businesses in general are preparing for days of competition ahead, when the war is over and they go again into a "buyer's market." It is natural then that they would develop all of the selling possibilities of their own offices. Every business office has a selling task of some sort to perform, and the current situation merely strengthens the normal desire to make the office quarters speak out positively in building sales and prestige.

The effect of salesmanship in offices perhaps has stronger influence in strictly merchandising space than in offices: thus certain loft tenants go further than those in high-class office buildings—that is, in sales and display rooms. However, many merchandising concerns are going into more expensive space, and many office tenants—even law firms—are tending toward something more advanced than the heavy dignity of tradition.

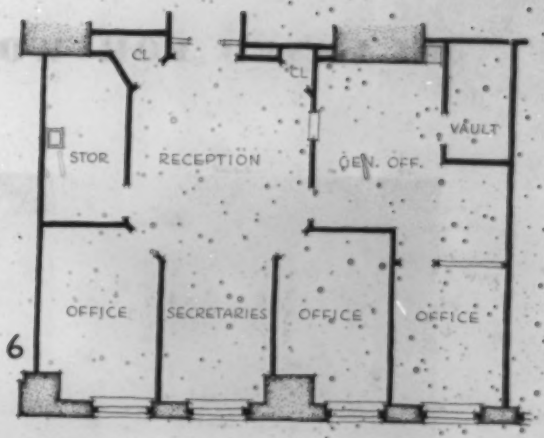
This salesmanship is not devoted entirely to the firm's clientele. Like charity, it begins at home. For if this is a seller's market, it also belongs to employees. The workers in the office "bull pen" are having their day, and more is being done for them. They are getting not only better light, better ventilation and better working conditions, but also improved and more cheerful surroundings. This might be considered a long-term trend as well as a current necessity; in any case it is a factor that will increasingly improve the office and add to the problem of the office planner.

All such factors are complicating the layout and design of office interiors, and, incidentally, bringing more and more professional designers into this activity.



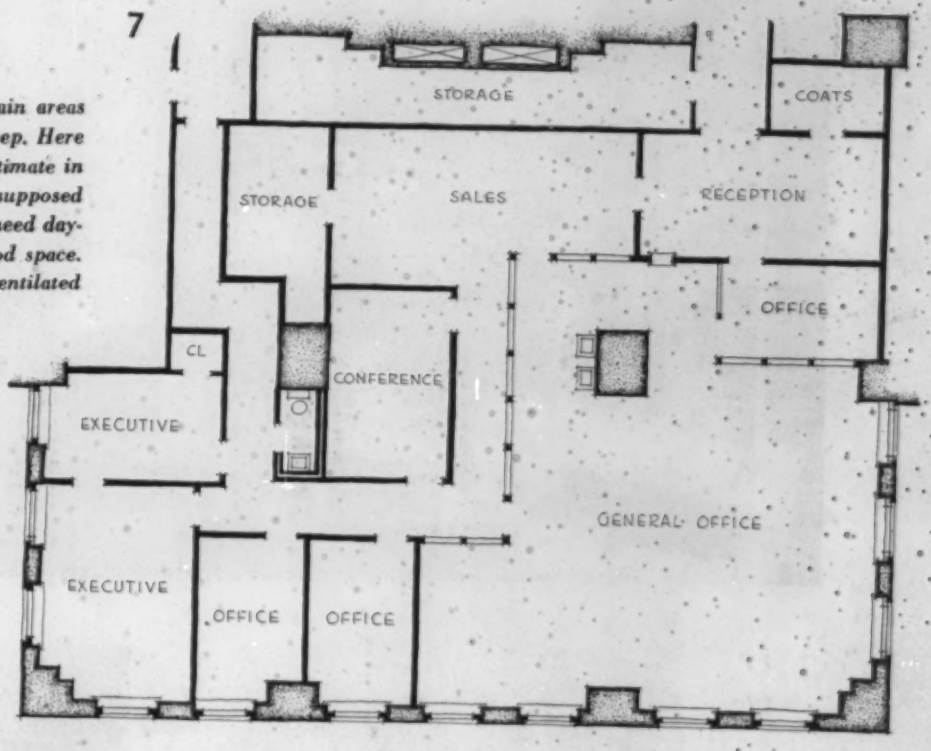


5. For a really nice office for two principals and two secretaries, here is a plan that might be considered ideal. The "big shot" gets a large, outside-corner office with its ante-room and private entrance. "Conference room" serves the same purpose for sub-executive and two secretaries



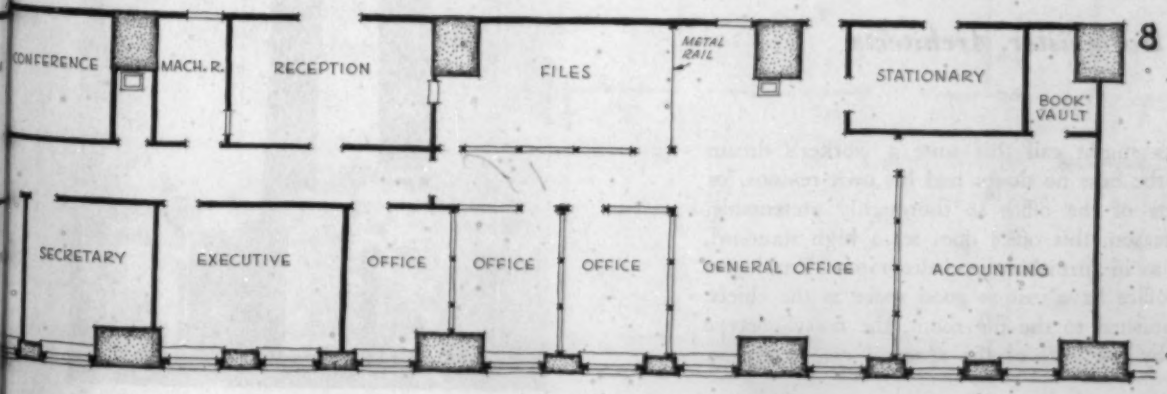
6. A similar office with more emphasis on the reception room. Here the visitors get more attention than either the executives' offices or the office employees. But here too, as in any well-planned office, the files, the stores, the lavatory, the coats, are hidden away in inside space

7. In every building there are certain areas where the space is exceptionally deep. Here is a plan which is just about the ultimate in the use of dark space. Salesmen are supposed to be out selling; their desks don't need daylight. But the office workers get good space. Conference room is mechanically ventilated

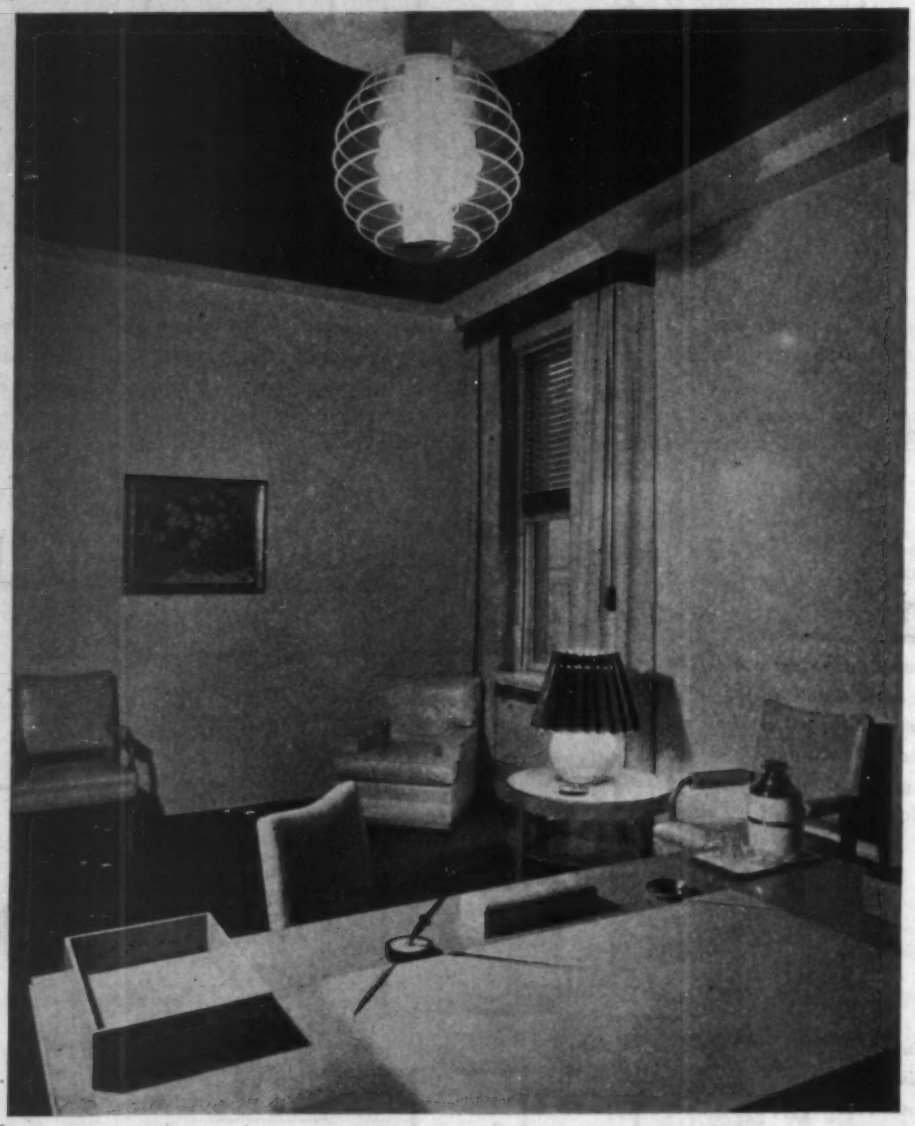


8. The business man's craving for daylight is well illustrated in this plan for an office with an unusual number of executives. General office workers and accountants get equal consideration. Even with all of this attention to daylight, however, the darker space was still insufficient; it was necessary to take a room across the corridor for additional storage space

All plans on these two pages are at one-sixteenth scale.



PLANNED FOR WORKERS' WELFARE



Wendell Mac Rae photos

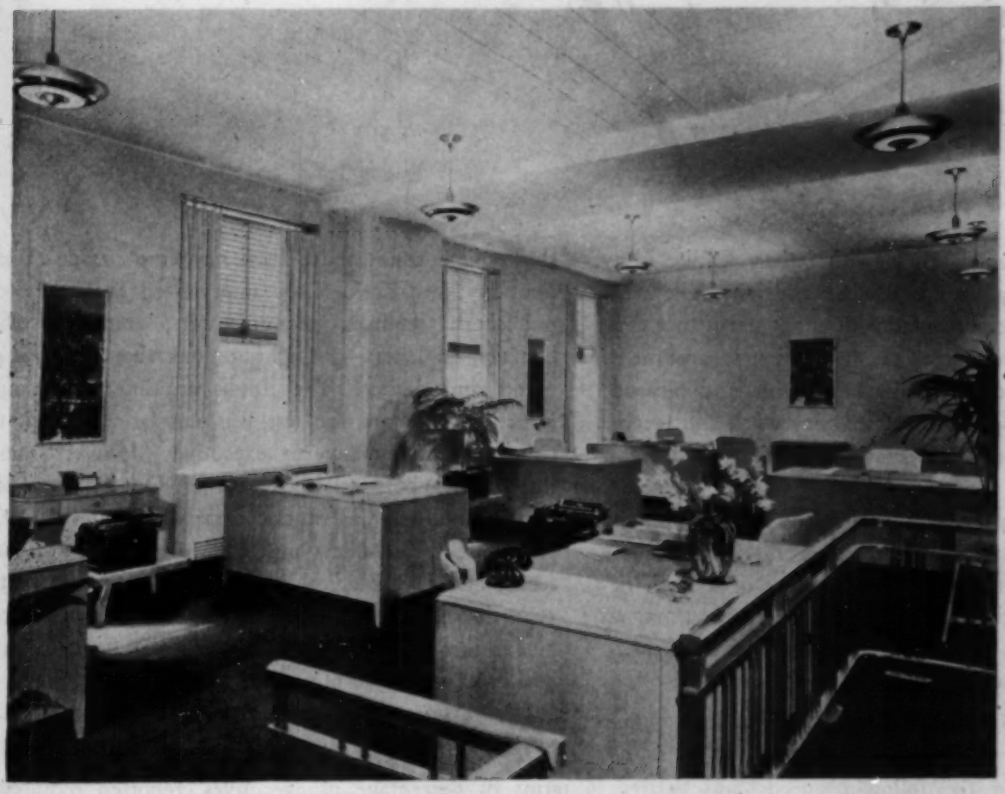
Consolidated Chemical Industries, Inc.

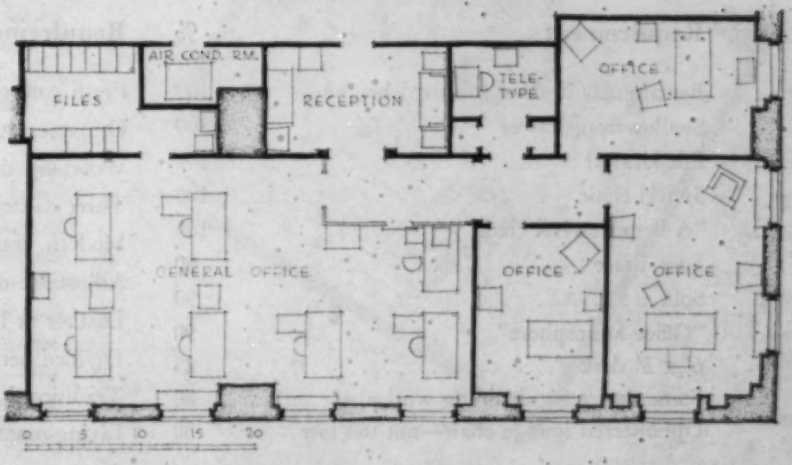
Offices in Rockefeller Center, New York

Reinhard & Hofmeister, Architects

A STENOGRAPHER might call this suite a worker's dream come true, but the boss no doubt had his own reasons for making all parts of the office so thoroughly presentable. Whatever the reason, this office does set a high standard, in plan as well as in furnishing and decoration. Employees in the general office have just as good space as the chiefs. All files are banished to the file room, the noisy teletype to its own cubby-hole. All of the space is completely air conditioned.

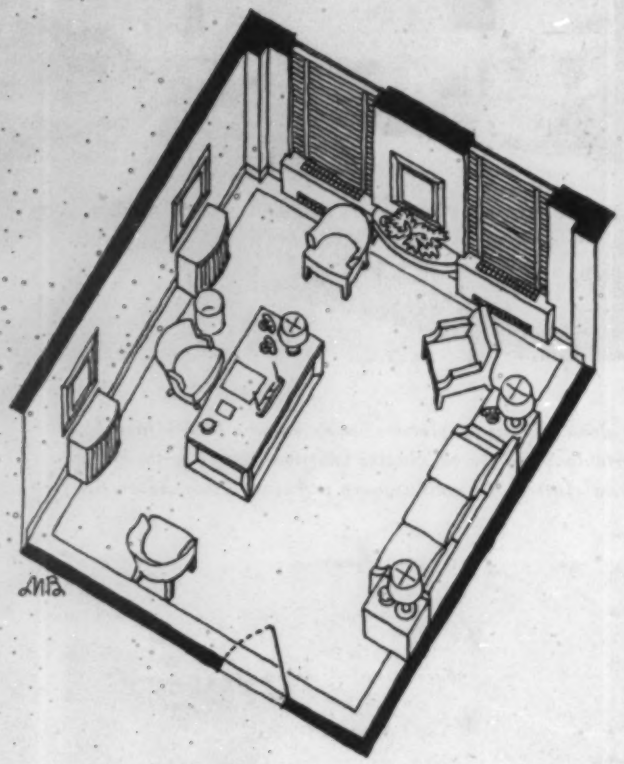
General office and private offices alike are done in quiet splendor, with simple blond furniture, carpeted floors, acoustic tile ceilings, comfortable upholstered chairs, venetian blinds with drapes. File room and closets prevent the usual office clutter. Air conditioning machines in corridor closet





General office is dimensioned to give best daylight to each pair of desks, not for the absolute minimum of space. Private offices are adequate, but they are not pretentious

EXECUTIVE OFFICE DESIGNED



Muller-Barringer, Designers

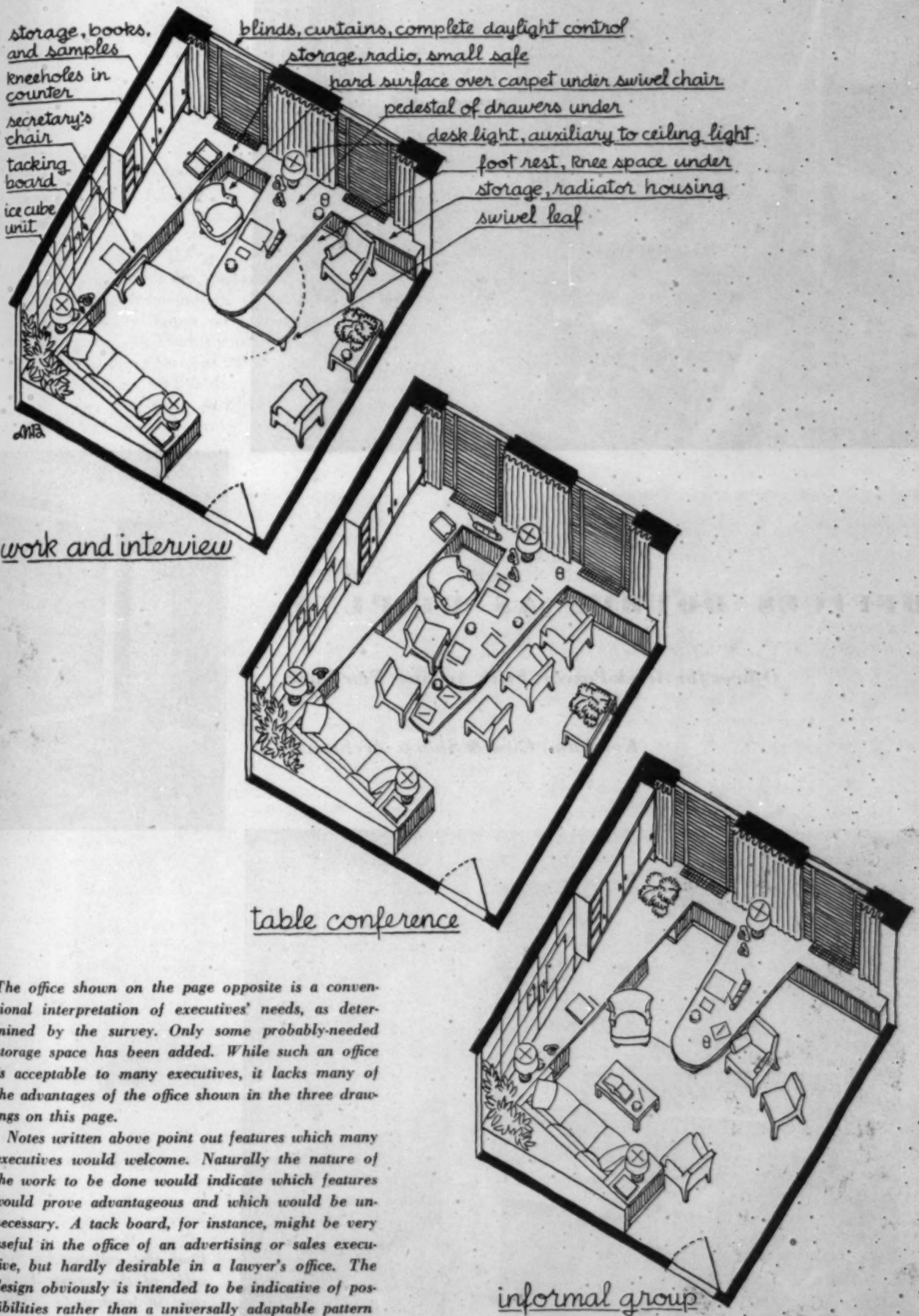
EXECUTIVES are usually people with rather definite ideas regarding what they want, and when and why. They also have powers of decision. But this does not mean that they are not open to valid suggestion, persuasion or argument. They, and their company, take both pride and pleasure in their offices, the setting in which they work and receive their business visitors. They may have rather fixed ideas, influenced by their accustomed environment or by something they have seen and admired in the offices of others. They can be shown, and sketches or models are most effective in demonstrating the possibilities of a fresh design approach which produces an environment nearer to their hearts' desire than their own preconceived ideas.

With this in mind the designers of the executive offices shown here conducted a local sampling survey of executives in New York. They interviewed lawyers, doctors, publishers, retailers, manufacturers, company officials, bankers, engineers—posing questions about their requirements and desires. The results are interesting and instructive, although the test was not large enough to be conclusive and many an executive "deviates from the norm" with personal idiosyncrasies. On the basis of the survey, the designers produced this custom-tailored executive office which offers much more in efficiency, convenience, and psychological lift than the more conventional type that many executives had in mind. The choice between the two types of offices is usually not difficult to make in view of the evidence.

The survey showed the following needs and desires in terms of percentage of executives' reported requirements.

Requirement	%	Requirement	%
Rectangular desk of standard height	100	Fresh colors—not too bright	80
Shallow top drawer	100	Draperies at windows	80
File drawer	100	Wood-top desk	70
Swivel chair	100	Three visitor chairs	70
"A better swivel chair"	100	Modern design	70
Foot brace	90	Adjustable drawer dividers	60
Sofa	90	Leather or linoleum-top desk	30
"Office atmosphere"	90	Divided between two and four visitor chairs	30
6′ x 3′ desk	85	Traditional design	30
Some device for doubling work-space surface	80	Living-room-library atmosphere	10
Upholstered lounge chair—not too low	80		

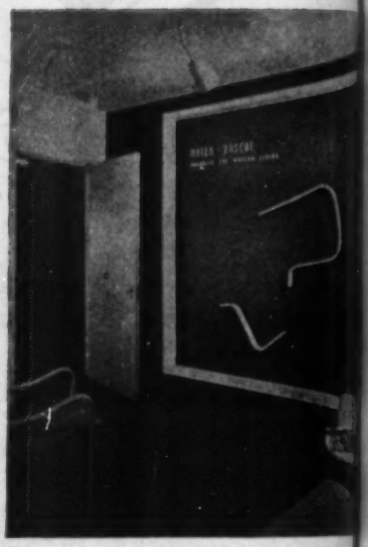
FOR FLEXIBILITY, CONVENIENCE AND MULTI-USE



The office shown on the page opposite is a conventional interpretation of executives' needs, as determined by the survey. Only some probably-needed storage space has been added. While such an office is acceptable to many executives, it lacks many of the advantages of the office shown in the three drawings on this page.

Notes written above point out features which many executives would welcome. Naturally the nature of the work to be done would indicate which features would prove advantageous and which would be unnecessary. A tack board, for instance, might be very useful in the office of an advertising or sales executive, but hardly desirable in a lawyer's office. The design obviously is intended to be indicative of possibilities rather than a universally adaptable pattern

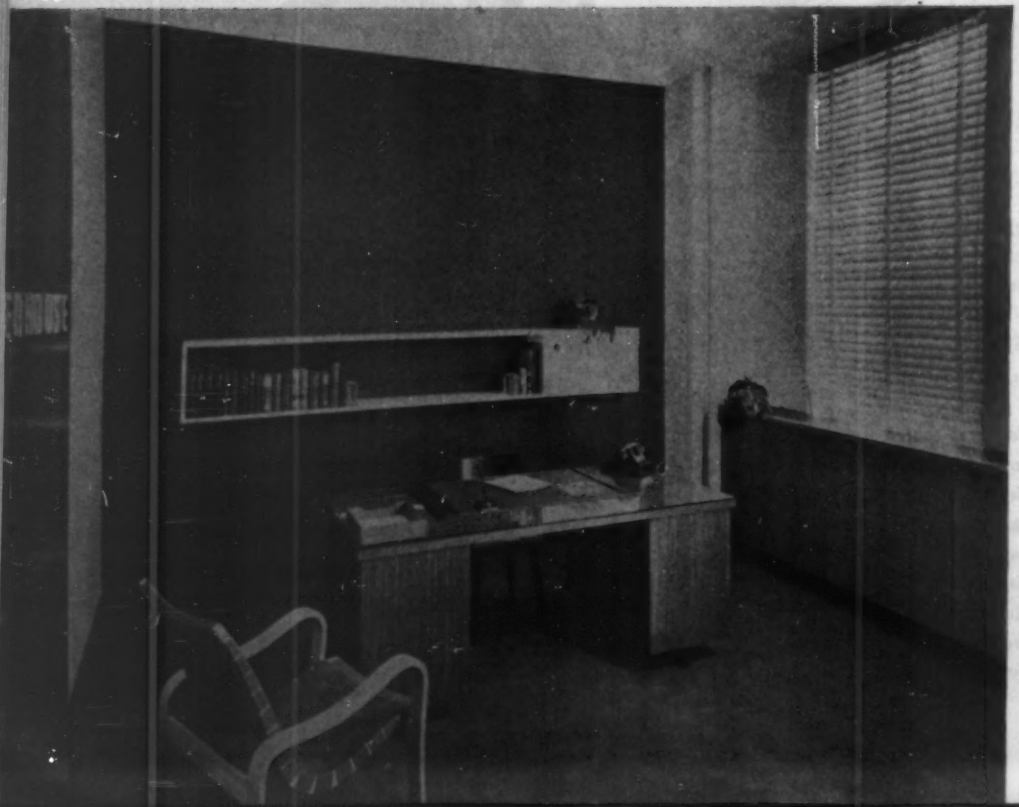
Angled coat closet and cabinets disguise a column in an office for a secretary



OFFICES DOUBLE AS DISPLAY

Offices for Artek-Pascoe, Fifth Avenue, New York

Ketchum, Gina & Sharp, Architects



Book case wall matches the color of the carpet; book case in contrasting white

Ben Schnall photos

View through general office looking toward reception room

ONE would expect that a manufacturer of modern furniture would do something special in its own office space, and in this instance one would not be disappointed. The basic requirements for the space were the usual ones—reception room, private offices, general office, research room—but the resulting visual and amenity values go considerably beyond the usual. In short, the offices serve as display for the firm's furniture, as well as for their normal function. While there are some walnut paneling and a few dark walls, to contribute contrast and to serve as display background, in general the offices are kept as light and "airy" as possible, with glass block partitions where they would be useful for "borrowing" light. In reception room and private offices, ceilings are furred down, with acoustical materials and recessed lighting fixtures.

Glass block wall borrows light for the general office

MODERN LAW OFFICE AND LIBRARY

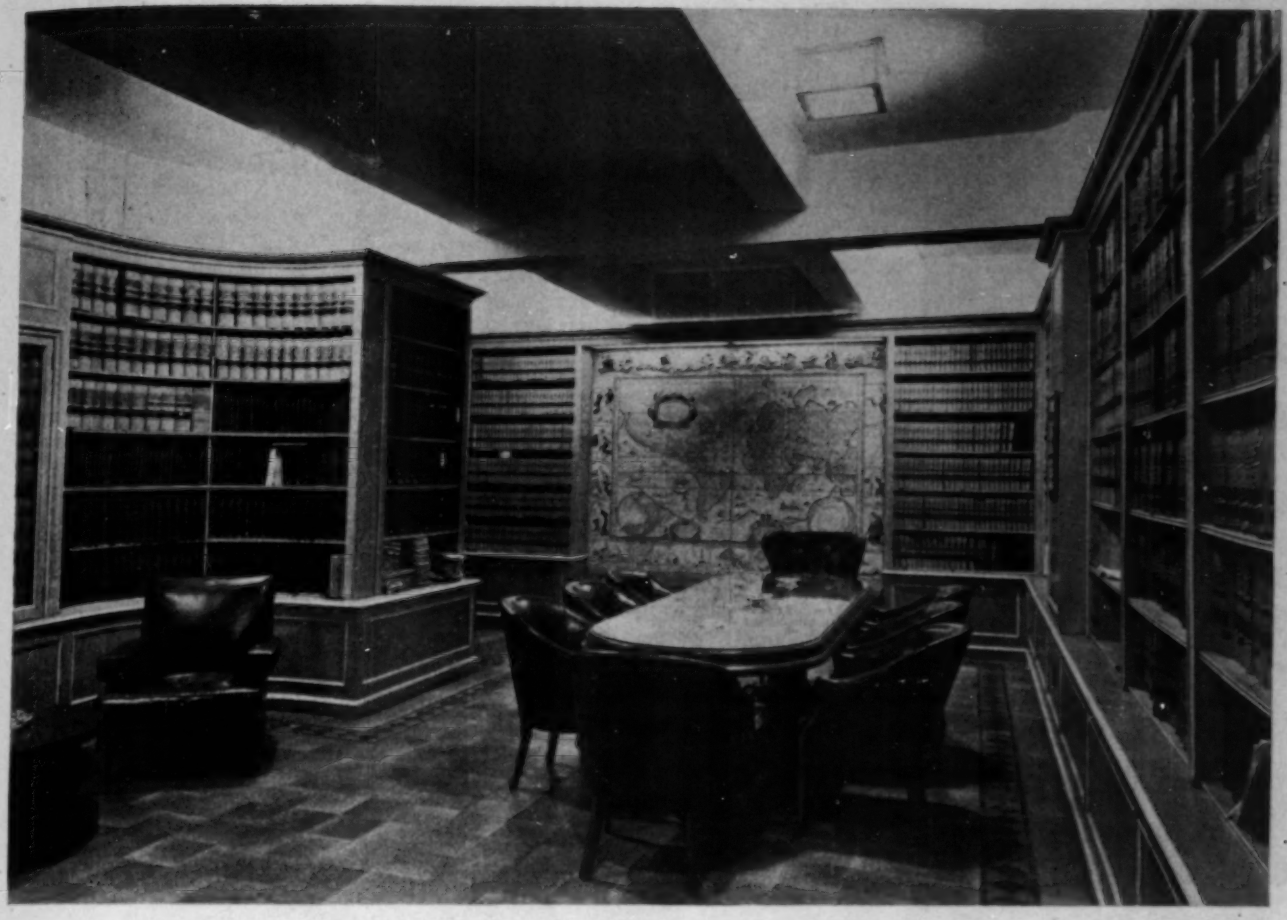
Offices for Nemeroff, Jelline, Danzig & Paley; Empire State Building

Hans Weiss and Henry Zimmerman, Designers

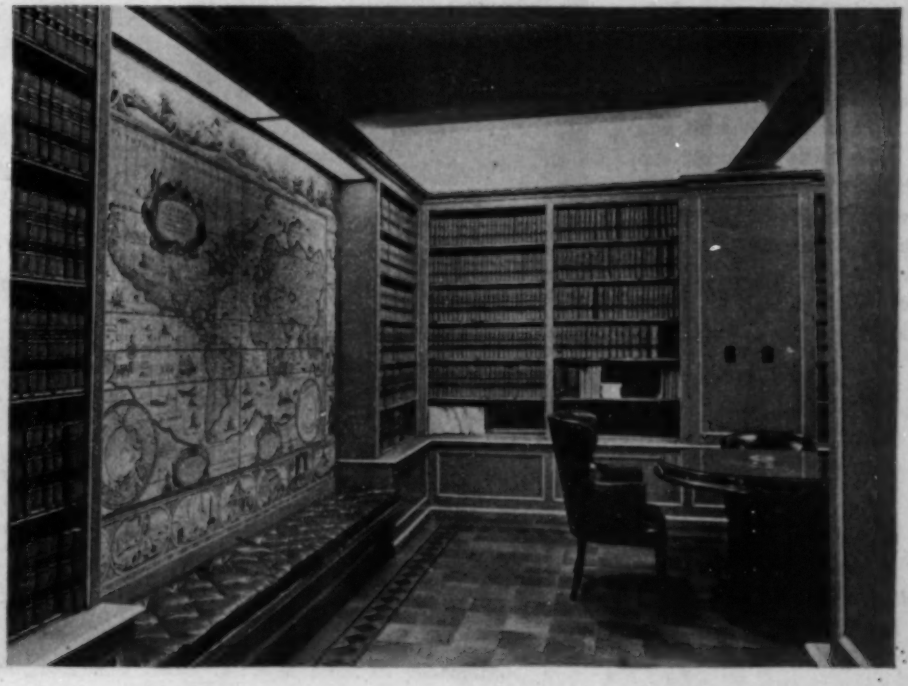
Gottscho-Schleisner photos

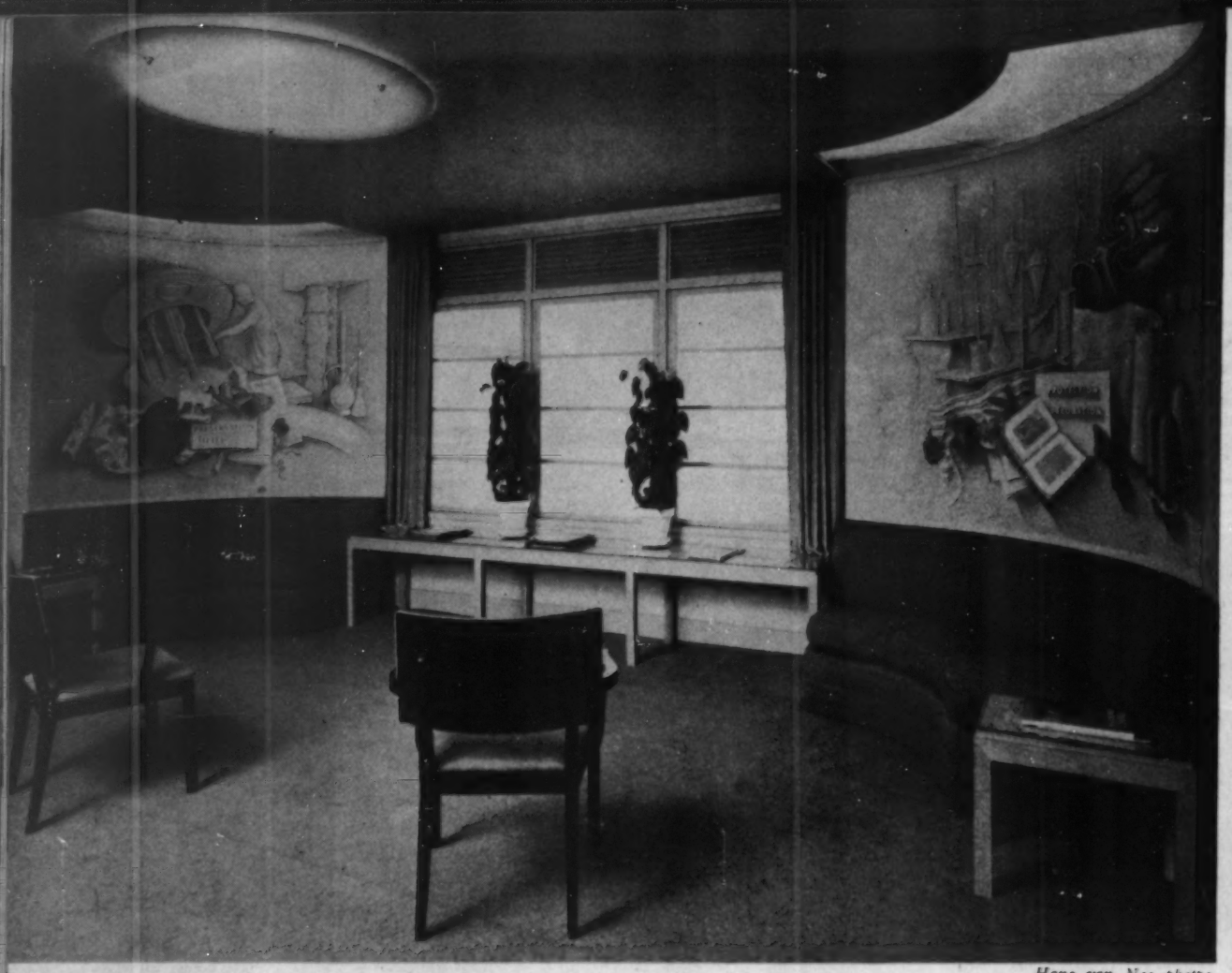
The paneling featured at the end of the reception room amounts to making a virtue of necessity, for it encases an otherwise objectionable column

THE DIGNITY that seems a requirement for the law office does not bind the designer forever to strictly traditional styles. True, the law office cannot afford to reach out for the more enticing abstractions which might be a definite objective for a sales office, but certainly the designer may feel free to suggest that the law has advanced somewhat since colonial days. This one manages to achieve a note of balance between the background of the law and the pace of modern business. Color schemes combine beige and brown tones with some restrained yellow striping, walnut paneling, with greens in drapes and leather upholstery. Blending in with these decorative notes is the cork tile floor in reception room and library, which is also appreciated as a sound-deadening measure.



An extensive law library makes an effective background for a conference room. Curving bookshelves at the left take advantage of extra space left between two huge columns. Conference room also serves as a passage from reception room to offices of the partners





Hans van Nes photos

EXECUTIVE SUITE FOR A LARGE OFFICE

REPRESENTATIVE of the larger offices of New York, this one occupies a whole floor in the base section of the Empire State Building. Much too large to be reproduced here, its plan is also representative, in that executive offices are concentrated at one end of the floor, near elevators, separated by the elevators from the maze of general offices beyond. Representative, too, in that the reception room greets the visitor with a note of modern efficiency, while the officers' quarters are done in more traditional elegance.

Reception room restrains its salesmanship of the firm's products to two large murals on the curved wall surfaces. The room is in "dark" space; false window is lighted from the rear

Reception Room and Executive Offices

The Interchemical Corporation

Empire State Building, New York City

Above: corridor serving executive officers' suite is not so much a corridor as a wide foyer, which serves also as an officers' reception room and lounge and further insures the privacy of the company's top executives

WHERE OFFICES EMPHASIZE SELLING

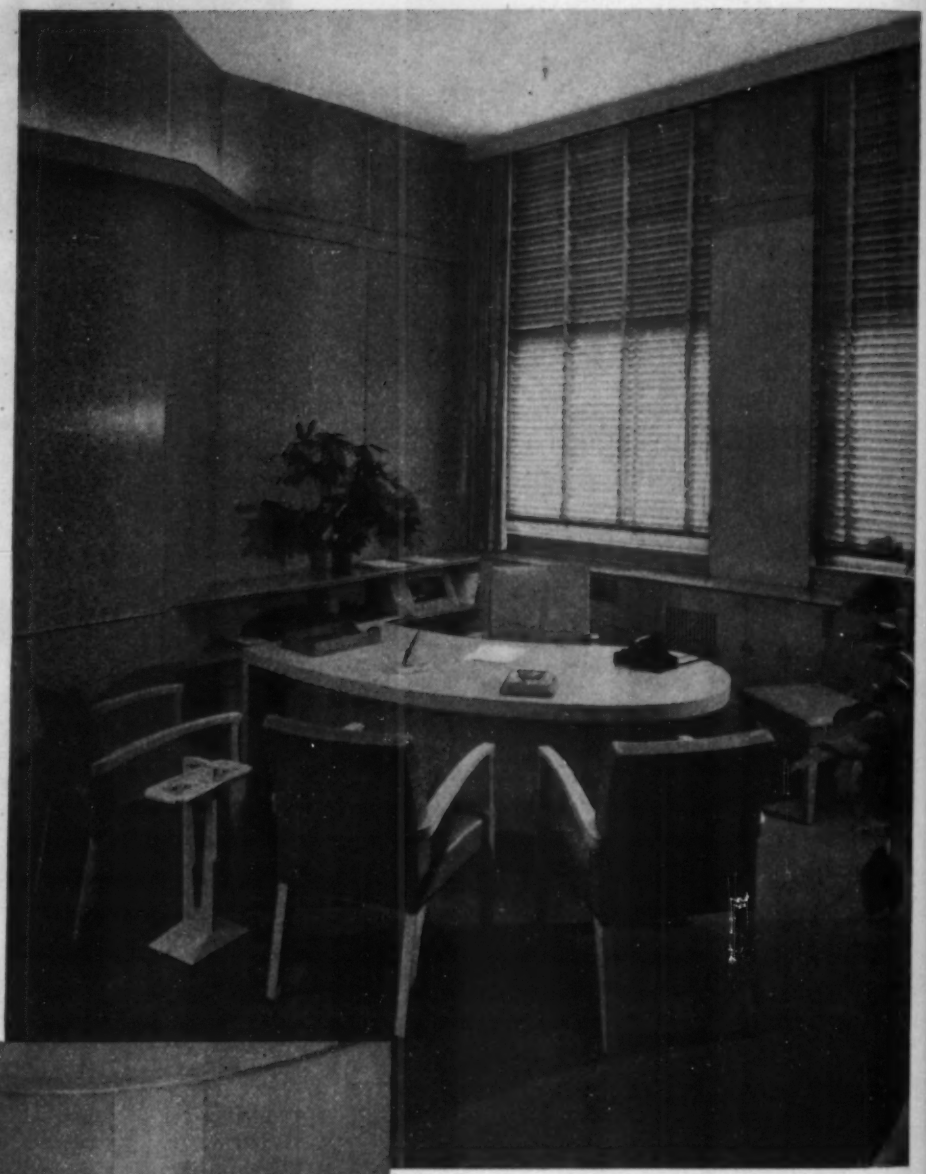
Officers' Quarters of

Einson-Freeman Co.

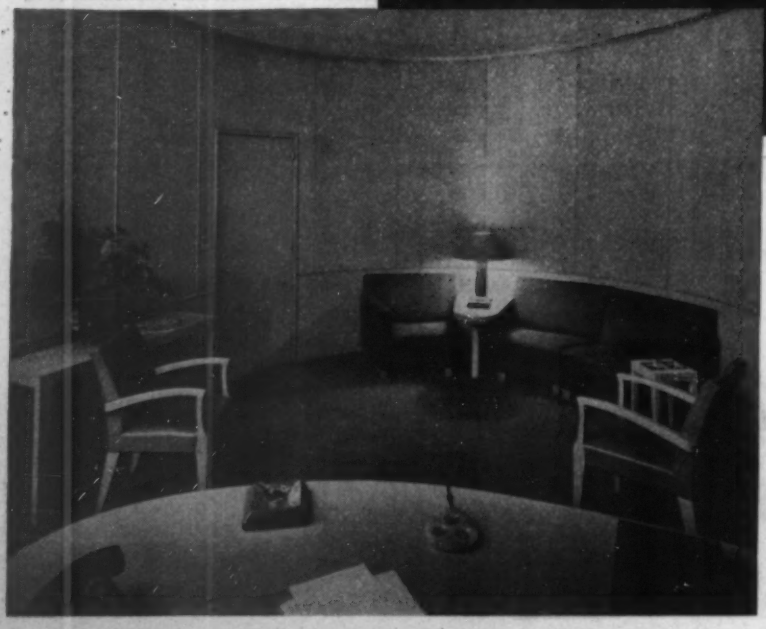
Long Island City

Joseph Aronson

Designer

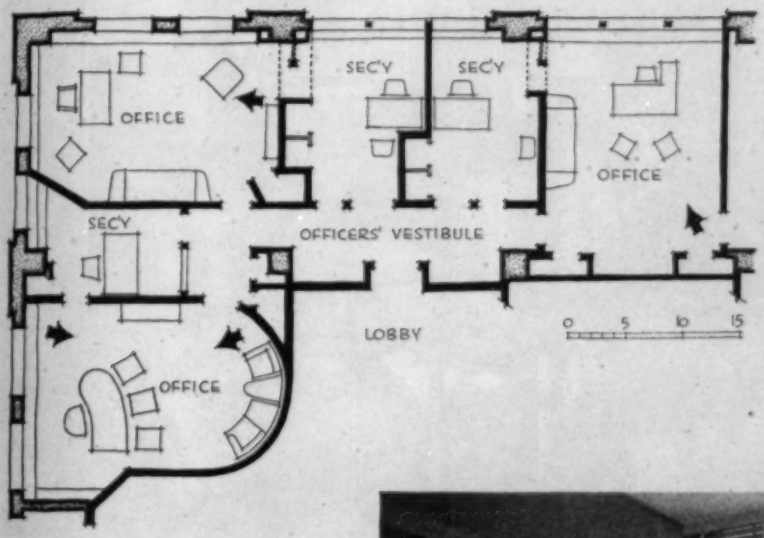


Richard Averill Smith photos



A private office planned for direct selling. The officer's desk is designed not so much for the shuffling and hiding of important papers as for the reception of important people

Walls in the officers' rooms are of oak plywood, limed; furniture, limed oak; ceilings, acoustical fiberboard. Floors are carpeted



THE TREND toward the modern, functional office is nowhere more in evidence than in the strictly sales office, where the firm's buyers are received. Here the selling effectiveness of the office can be measured in tangible terms, the investment easily justified. Thus there is no paradox in the fact that many a loft building outdoes the more expensive office building in luxury of its tenants' appointments. Here is a good example from Long Island City, for a merchandising concern whose officers are salesmen before they are administrators, and whose offices reflect this objective.

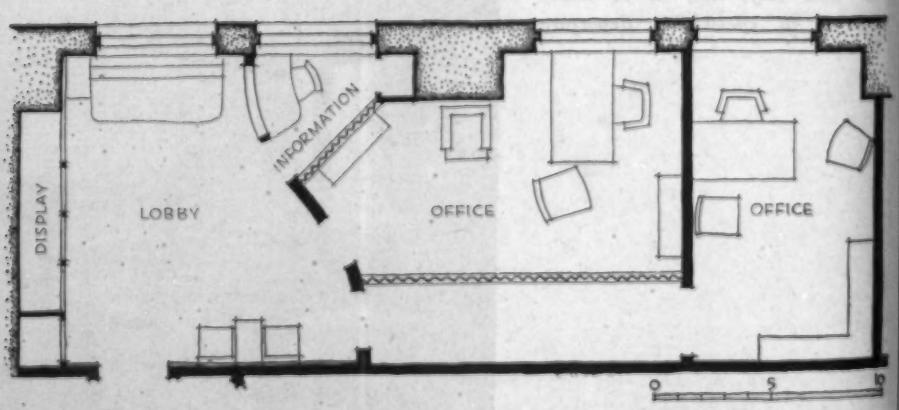
Furniture is designed to make the guest comfortable enough so that he will stay, not, as in many offices, to speed his departure

SMALL SUITE DESIGNED FOR SELLING

Offices for Hatch Full Fashioned Hosiery Co., Empire State Building, New York

Hans Weiss and Henry Zimmerman, Designers

Gottscho-Schleisner photo



The usual space problem in reverse—space too shallow, not too deep. Curved partition and mirror increase visual depth

View toward receptionist's cubby-hole and along short corridor into private office. Corrugated glass partition "borrows" light for the passageway

A HOSIERY sales office does not require much space, but it does require a sparkling and attractive background for selling and display. Accordingly, the designer's problem here was to make effective a group of unusually shallow offices. The two partners wanted private offices that would not make it appear that either one was boss and the other assistant. The receptionist wanted a small place of her own, where she could have some privacy when there was work to be done. The curved partition accomplished both purposes, and made another contribution—the visual interest and visual enlargement it gave to the small reception room. Mirrors along the corridor wall contributed further to the impression of size.

Cabinets along end wall provide small hosiery display case, and storage room for office supplies. Ceiling furred below beams, with recessed lights

Gottscho-Schleisner photos

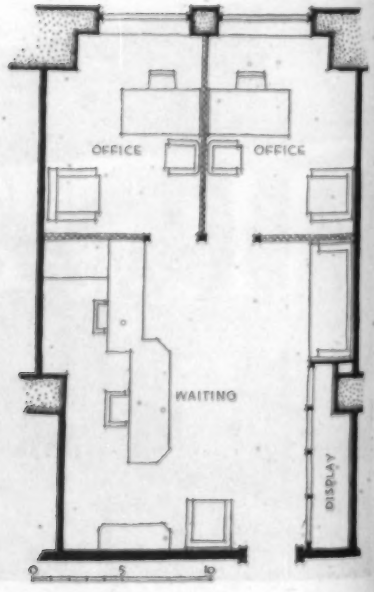
MODERN VERSION OF "TYPICAL" OFFICE

HERE is an up-to-date version of the typical "T" office, which appears so frequently on renting plans, but so seldom in practice. Corrugated glass partitions brighten the inner office, both actually and stylistically. And also measurably save space in a small area. (Door bucks must be reinforced with channels in jambs). The reception girl's enclosure and built-in furniture, and the wall cabinet with the display case, all of walnut, add decorative notes and provide cover for stores, wraps, and otherwise preserve order.

Sterling Battery Co. Offices

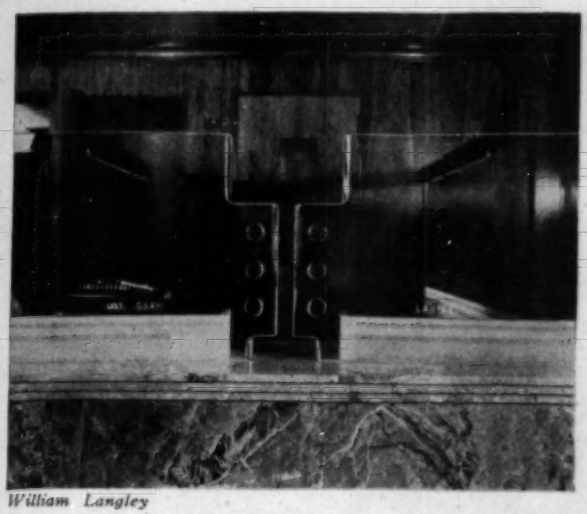
Empire State Building, N. Y.

H. P. Zimmerman and H. Weiss



TELLERS' CAGE DETAILS

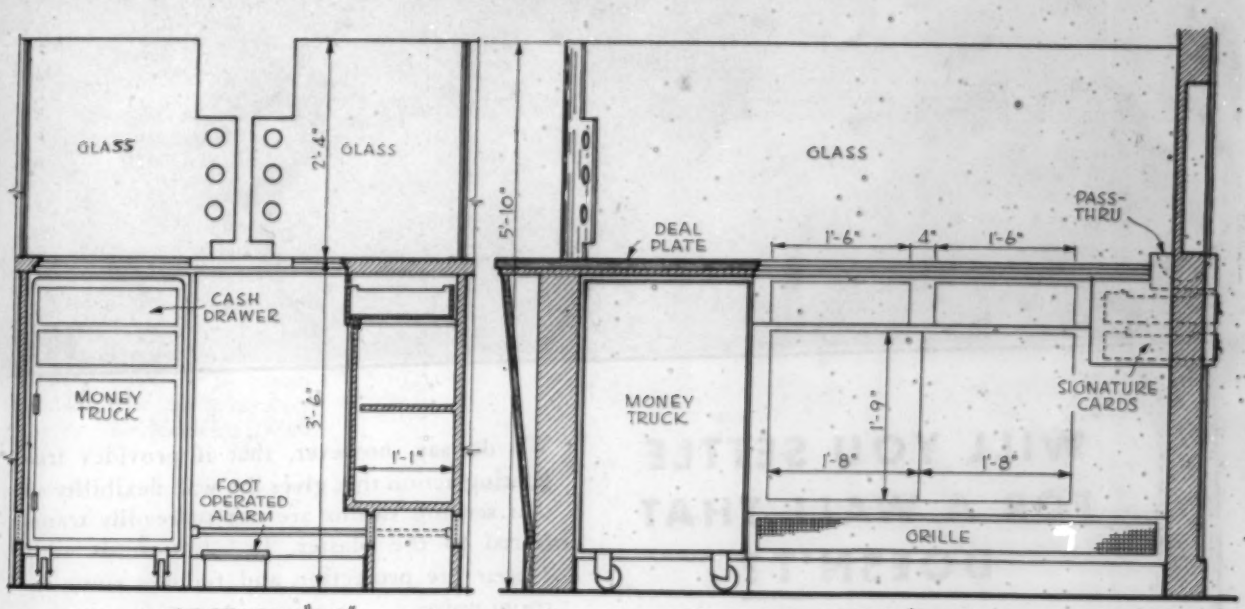
From plans by Walter W. Ahlschlager & Assoc. for the Mercantile Bank, Dallas, Texas



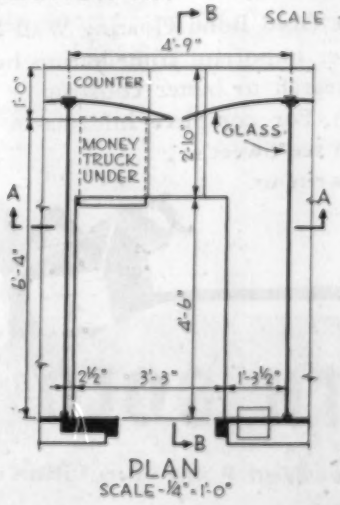
William Langley

There are several types of tellers' cages. Their designs and requirements may vary; nevertheless there are certain basic elements which should be included in all of them. The example shown on this page is a typical Paying-Receiving cage. As shown in the drawings, there should be two cash drawers, equipped with metal cash trays. There should also be a separate drawer for packaged money. A cupboard to one side of the counter is necessary for storage of check books, blank checks, slips, pads and stationery. Other equipment, not built into the cage, will include a stamp rack, a change maker and probably a money truck. The arrangement shown below would do equally well for a Notes & Securities cage, but a Loan Discount cage should have more shelving to take care of the additional ledgers.

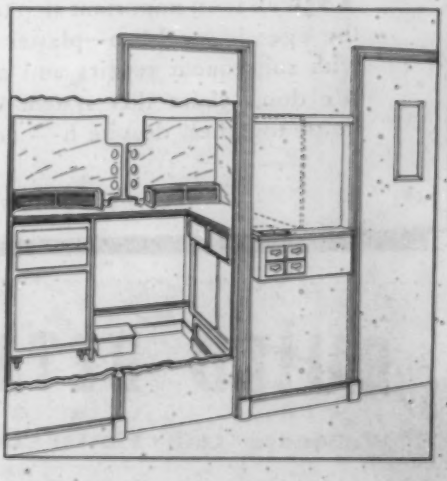
In this particular installation a curved three-quarter inch specially designed plate glass screen was used to carry out the general scheme of the Mercantile Bank.



SECTION "AA" SECTION "BB"



PLAN
SCALE - ½" = 1'-0"



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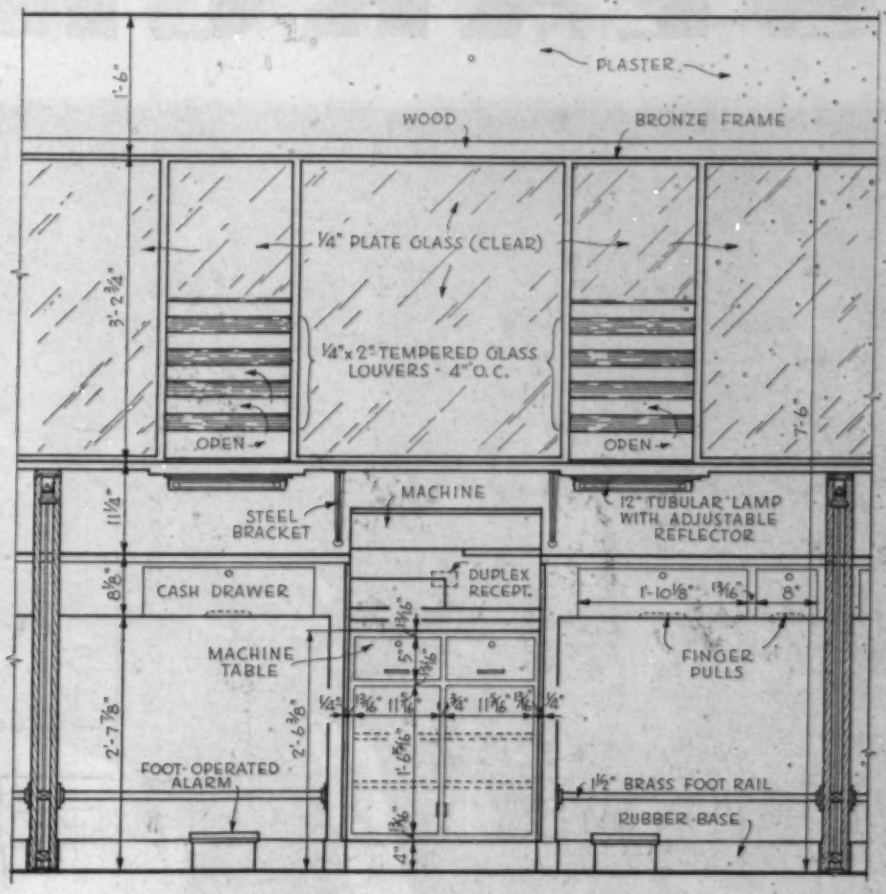
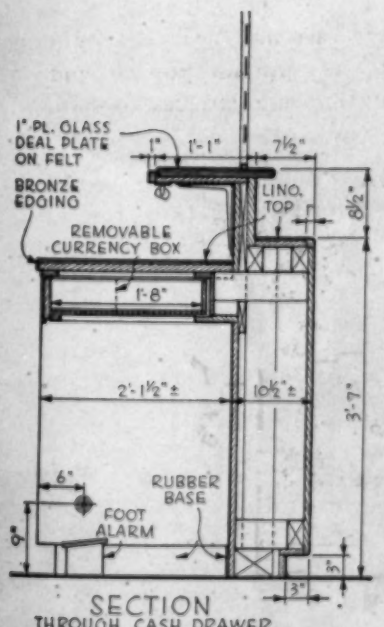
COMPOUND INTEREST DEPARTMENT CAGES

The inherent nature of the Compound Interest Department and its special equipment necessitates greater area than that required by tellers' cages. Instead of one teller to a cage, the C.I.D. cage has two. Between the tellers is a posting machine which computes and registers in the pass book the amount of interest due each customer. The posting machine is dependent upon perforated cards for its operation; these cards are stored in a series of storage drawers called "tubs." The tub would be placed along the wall. They are usually 2 ft. 10 in. deep by 4, 5, or 6 ft. in length and about 3 ft. 2 in. high. Because of the size of the tubs, it is usually recomended that the C.I.D. cages be a minimum of 8 ft. deep.

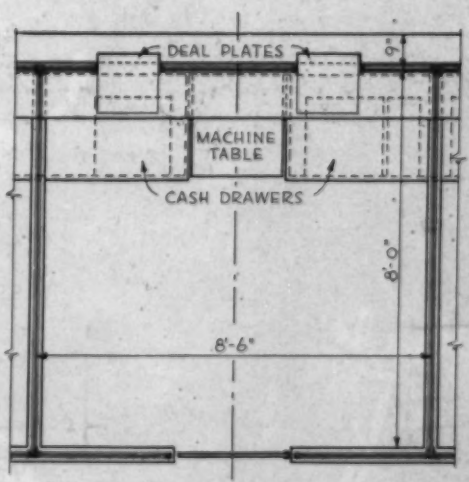
Besides the above equipment there should be built-in drawers and space for packaged money, as shown in the plans. A cupboard should be provided for check books, stationery, pads and blank checks, under the machine table. In the cage there will also be racks for stamps and a change maker. As an aid to handling cash, it is recommended that a fluorescent tube be placed under ledge.



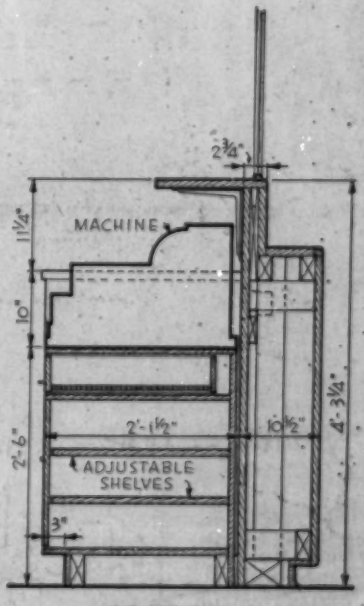
ELEVATION - BACK OF COUNTER
SCALE ½" = 1'-0"



SECTION
THROUGH CASH DRAWER
SCALE - ½" = 1'-0"

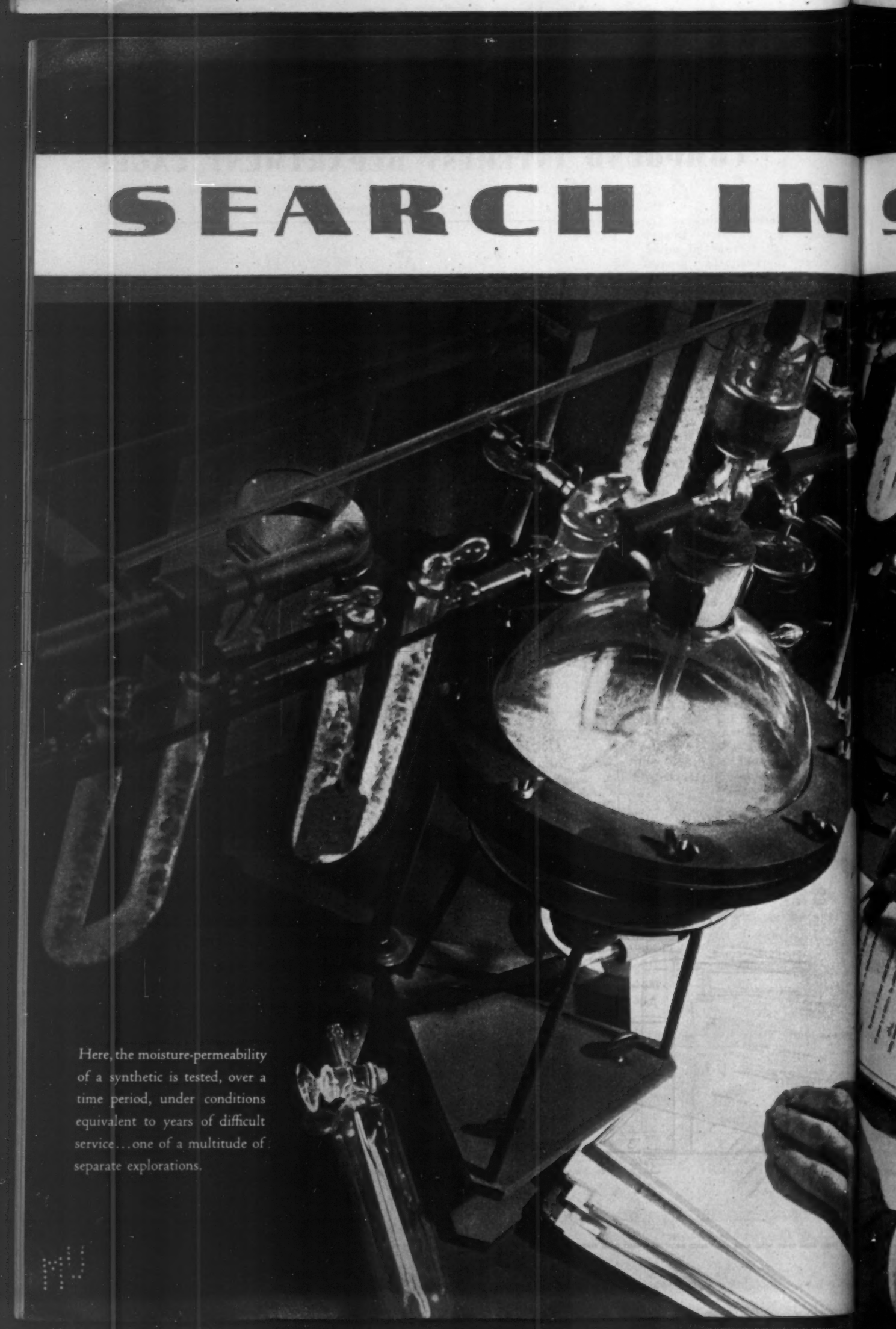


PLAN
SCALE - ¼" = 1'-0"

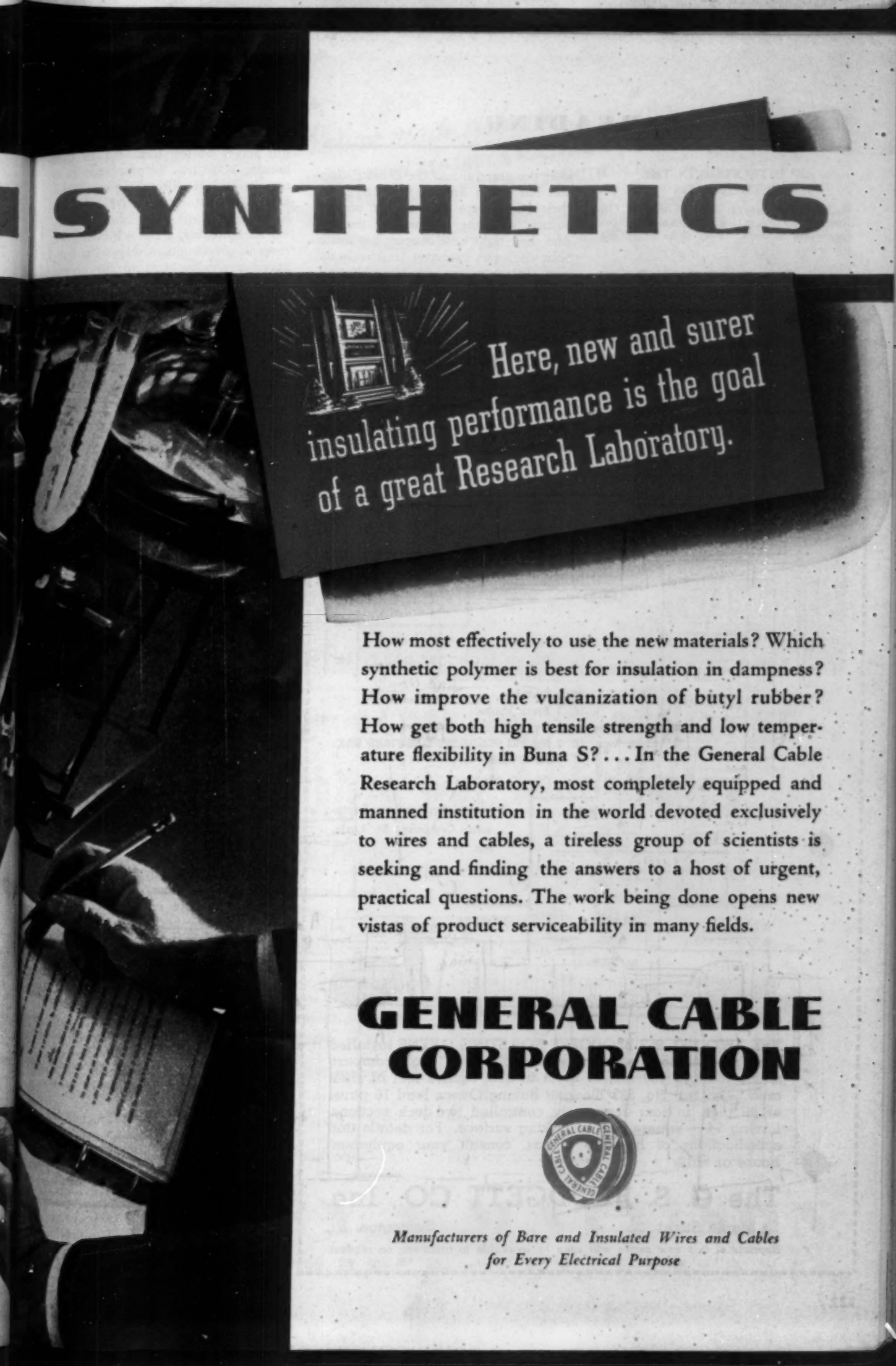


SECTION
THROUGH MACHINE TABLE
SCALE - ½" = 1'-0"

SEARCH IN



Here, the moisture-permeability of a synthetic is tested, over a time period, under conditions equivalent to years of difficult service...one of a multitude of separate explorations.



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REQUIRED READING

ARCHITECTURE IN THE NETHERLANDS

By Paul Bromberg. New York 20 (10 Rockefeller Plaza), The Netherlands Information Bureau, 1944. 6 by 9 in. 94 pp. illus.

This latest booklet on the Netherlands by Paul Bromberg again proves how perfectly the chief characteristics of a people and a country are mirrored in their architecture. The simple, direct Dutch always have built simply and directly; they favor mass and solidity over the graceful and the delicate. Soft soil has put a limit to the height of their spires, kept their skyline on the squatty side; the intrusion of the sea into their tight little country has made their engineers expert in land reclamation. Dutch thriftiness has abhorred waste space, Dutch love of the outdoors has demanded plenty of sunlight and fresh air. In other words, "modern" architecture is no innovation in Holland.

Nor is an awareness of the housing problem. As far back as 1901 the Dutch drew up a Housing Law which still serves as the basis for all their housing activities. "In proportion to its population," Mr. Bromberg says, "Holland has been more active in public housing than any other country in the world. Moreover, it has achieved lower rents in proportion to wages—and this at relatively low cost to the government." How this was and is done, Mr. Bromberg describes briefly, going on to point out that the slum clearance program for Amsterdam alone before the war brought about the condemnation of some 800 dwellings annually.

Amsterdam's plan of expansion, which Mr. Bromberg describes in some detail, was already under way before the German occupation of Holland. This ambitious project includes the building of two new communities, both of which feature large open park areas which will make them "garden villages" on the outskirts of the city.

COACHING ROADS

Of Old New England. Their Inns and Taverns and Their Stories. By George Francis Marlowe. New York 11 (60 Fifth Ave.), The Macmillan Co., 1945. 5½ by 8¼ in. xvi + 200 pp. illus. $3.50.

In this nostalgic little book is a good bit of the history and anecdote behind the old coaching inns of New England, and some description of the inns themselves, both as they were in stagecoach days and as they are now—those of them that still stand. It will appeal chiefly to those with a love of New England or a yen for the more anecdotal side of American history. The small amount of information on the physical appearance of the inns—their architecture and their plans—is frankly disappointing, however.

Thirty sketches by the author illustrate the text. The majority, but not all of these are of the various inns and taverns, including such well-known ones as the Wayside Inn, South Sudbury, and Groton Inn, Groton, Mass. Several typical spired churches and a few general views are also included. All the drawings are delicate of line and full of the spirit of their subjects. Some of them, in fact, are almost too delicate—a bolder touch would have given them more character without lessening their appeal.

VISUAL ARTS

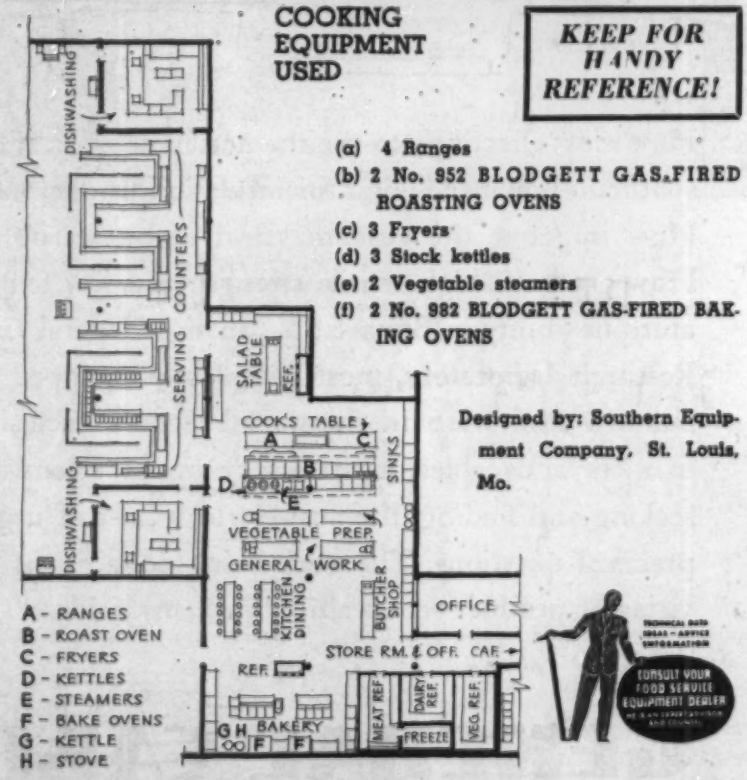
The Universities' Position with Regard to the Visual Arts. By Jean Labatut. Princeton, N.J., Princeton Univ. Press, 1944. 5½ by 8 in. 32 pp. $1.25.

"The lack of visual sensibility is such that if it were possible to translate in sound effects the false notes produced in some cacophonies of forms and col-

(Continued on page 124)

KITCHEN PLAN NO. 21: Twenty-first of a series of successful mass-feeding kitchen plans.

Difficult space is economically and efficiently used in this kitchen serving more than 5,000 employee meals at a St. Louis plant.



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(b) 2 No. 952 BLODGETT GAS-FIRED ROASTING OVENS
(c) 3 Fryers
(d) 3 Stock kettles
(e) 2 Vegetable steamers
(f) 2 No. 982 BLODGETT GAS-FIRED BAKING OVENS

Designed by: Southern Equipment Company, St. Louis, Mo.

THE TWO NO. 952 BLODGETT ROASTING OVENS installed here provide four separately controlled, 12"-high compartments loading 800 lbs. of meat in 37.2 square feet of shelf area. The two No. 982 Blodgett Baking Ovens load 16 pans, or 96 pies, in four separately controlled two-deck sections, having 74+ square feet of baking surface. For details and specifications of Blodgett Ovens, consult your equipment house or write

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REQUIRED READING (Continued from page 122)

ors, the authors themselves would be so frightened they would run away in shame," Jean Labatut comments in this lively address made before the Architectural League of New York last June.

Concerned primarily with the importance of the visual arts in life, and their place in liberal education, Mr. Labatut has little to say directly on architecture. Indirectly, of course, almost all of what he says is applicable to architecture as well as to the other visual arts. One point he does make is this: "In the past, architectural forms were conceived to control daytime illumination. Architecture was essentially 'diurnal,' and not created to be floodlighted from below. Floodlighting of classic architecture seems a very unbecoming gesture, to say the least, if we respect classic architecture as a distinguished ancestral lady. Today, architecture has a night life and we have already achieved elements of 'nocturnal' architecture, but examples of a 24-hour architecture, architecture designed for day and night illumination, were amazingly rare even on that vast experimental ground, the New York World's Fair of 1939."

AUSTRALIAN PLANNING

1. Wanted! A Plan! Report on Postwar Development by the Royal Australian Institute of Architects. 8¼ by 10 in. 20 pp. illus 2. The Slums Are Still With Us. Melbourne, Australia, An Opportunity Clubs' Publication, 1944. 7¼ by 9¾ in. 64 pp. illus.

The first of these two interesting pamphlets from "down under" presents the conclusions reached by the R.A.I.A. on how the architect can best play his part in the postwar development of his community. The report is divided into four sections: (1) National Framework; (2) Building Industry Organization; (3) Codes and Standards; (4) The Architects' Contribution.

The second pamphlet is less scholarly—and much more interesting. Written in lively style, and illustrated with pert little sketches, it is addressed not so much to the architect and town planner of today as to the layman and to the younger generation which will produce the architect and town planner of tomorrow. Its very simplicity lends it an emphasis which many a more pompous volume lacks. Subjects covered include the *raison d'être* of slums, their prevention and their cure; the transportation problem; housing; the community center. All the best precepts of planning are here, and words of wisdom are frequent. Particularly is this true in the last chapter, "Planning Integrates All Our Activities." Here the requirements of the modern city are summed up in terms of the increasingly popular "ring" concept: an inner ring of intense development, where the business and commercial centers are located, but separated from each other; factory areas separated from residential; trams eliminated from streets and speedy underground transportation substituted; major arterial roads and railways taking city traffic speedily out into the suburbs and country; future growth of the city taken care of by satellite towns each of which will be a complete community.

WORLD TIMBERS

Vol. I. London, E. C. 4 (75 Cannon St.) Timber Development Ass'n., Ltd.

Complete descriptions of the 50 timbers considered by the TDA as likely to be most readily available for use in England at the end of the war. Among the items covered are color, texture, characteristics, strength and durability. Handily arranged, this should be a practical reference list in this country as well as in England.

Guard against
OPEN CREVICES DURING PERIOD OF CONCRETE SLAB CONTRACTION
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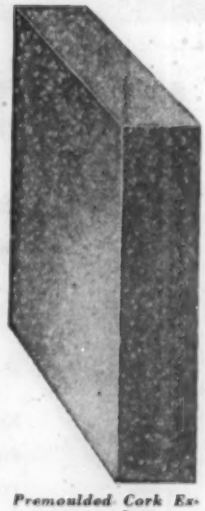

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Send for a catalog that illustrates the proper water seal and expansion joints for concrete and general construction.

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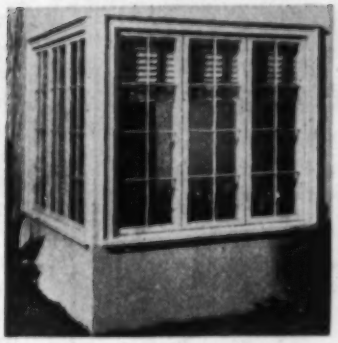
Bay windows need not be luxuries—if built of Curtis Silentite stock units. Use Curtis bays to make small rooms look larger—to add charm and variety to your plans. Curtis offers several styles from which you can choose.



Even the smallest homes can have modern window arrangements when you specify Curtis Silentite Windows. These are Silentite casements. The wide variety of sash styles gives you greater scope in your planning.

Mr. and Mrs. America will be critical, discriminating "window shoppers." They want more windows, of course, BUT those windows must be weathertight . . . able to bar out chilly drafts . . . *thrifty* windows that keep fuel costs low. And they must be easy to operate, too.

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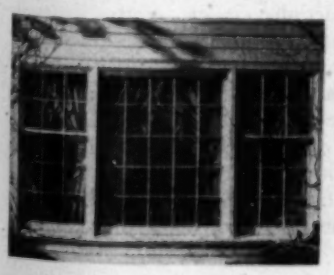
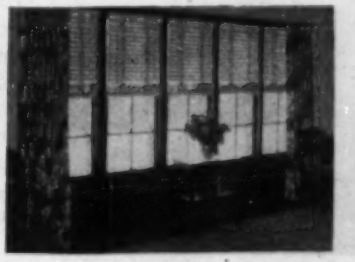
Curtis leadership in research—Curtis improvements in window and woodwork design—will meet the post-war demand for modern windows of all styles and sizes. Keep up to date on windows and stock architectural woodwork with Curtis—mail the coupon for complete information.

There's a wealth of architectural distinction in this Curtis picture window. Notice the narrow muntins—a feature of Curtis "streamlined" window design. Your clients will be sure to like "window walls" like this.

Silentite's narrow mullions (no weights or pulleys) give a more beautiful effect when windows are grouped. More light is admitted, too. You'll find it easy to "sell" home owners on Silentite's many features.





1865 CURTIS WOODWORK
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PRE-FIT
the "Insulated" window

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Gentlemen: Please send me free literature on Silentite Windows and Curtis Stock Architectural Woodwork.

Name.....

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City.....*State*.....

 (Continued from page 12)

building—a request which will bring sighs of relief from those builders whose projects have been held up for lack of funds.

The law under which privately-financed war housing is constructed winds up this June, but may be extended. Meanwhile NHA will be at work on the removal of temporary housing and FHA looks for increasing foreclosures of privately built apartments. Sole construction will be under the "H2" program covering new building in crowded cities. The agency expects 175,000 privately-financed H2 units. As outlined before the Appropriations Committee, this is the full 1946 job:

1. Arranging for 175,000 H2 units.
2. Eliminating occupancy and other controls over war housing, community by community, as soon as possible.
3. On a reduced scale, providing housing for war workers.
4. Disposing of war housing no longer needed.
5. Unwinding war regulations.
6. Supervising subsidiary agencies.
7. Helping private building off to a good start.

Ferguson Testimony

Abner H. Ferguson of FHA told the Committee that he expects the same number of applications for construction in 1946 as in 1944, but that they will be "processed under the regular part of the act, Title II; whereas in 1944 substantially all of the new construction mortgages were processed under the emergency war housing title, Title VI." Where he would get the materials for Title VI construction, he did not say. He expects applications for 125,000 small homes and moderate scale apartment building.

Ferguson predicted heavy foreclosures of the emergency housing, as cut-backs, migrations of war workers and similar factors created vacancies. In the 1946 year, he said, small home foreclosures would reach 11,250 and apartments 1,250.

War Lumber Outlook

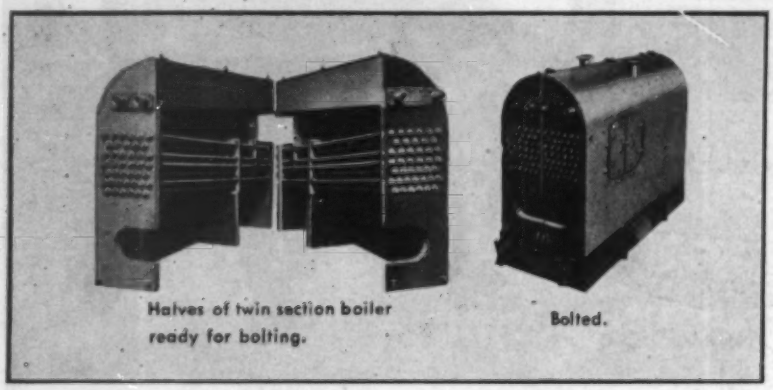
Men in the Construction Bureau of WPB remain at work writing the word "No" on most of the applications to build. Mobilization Director Byrnes issued a new order to plan for V-E Day and WPB officials are planning, but plans no longer envisage anything so ambitious as creating a supply of building components before actual construction starts.

Officials now expect a tight lumber market through the war in the Pacific. Indeed, preparation for a long war on the Chinese continent is increasing demand while reducing the supply. The Armed Services, evidently, are spotting equipment throughout the Pacific which calls for wooden cases, warehouses, etc. At the same time, they are ordering great numbers of heavy trucks and truck tires, the depleted supply of which is a major factor in curtailing lumber delivery. WPB officials are gloomy, indeed; they forecast a 1945 demand of 40 billion feet and only 30 billion of supply.

Restrictions Strengthened

With conversation in Washington construction circles pretty generally dominated by groans over manpower and materials shortages, WPB has announced quite simply that "restrictions will be strengthened." John L. Haynes, head of WPB's Production Bureau, sums it all up in five words: "The lid is on tight." Not only are restrictions on materials being kept bow-tight, with

(Continued on page 128)



Halves of twin section boiler ready for bolting.

Bolted.

A "FUEL-SAVER" TWIN-SECTION

Requires No Field Welding

The Type C, twin section, is a heating boiler in halves requiring no field welding, for installation where Type C one piece cannot be carried through existing passages. The only erection work is the bolting together of the two halves.

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QUICK STEAMING: Due to rapid and positive internal water circulation.

MAXIMUM HEAT ABSORPTION: Due to effective distribution of heated gases.

EASE OF CLEANING: Due to accessibility of heating surfaces.

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(FLEMING DRAINS)

THE RECORD REPORTS (Continued from page 126)

only the most essential items for the most essential uses being made available, but further tightening of the manpower regulations have been announced. A new five-point program approved by the Army and Navy and the War Manpower Commission continues to leave the authorization for the use of manpower up to the Production Urgency Committee, with a possibility that in addition to the local OK of the Area Committee, direct approval from Washington will be required for use of manpower in any sort of construction.

Curiously, the NHA expresses no concern over materials shortages. This they explain by the success of their careful scheduling and allocation of materials. When a scheduled project is not built for one reason or another, the materials assigned to it are turned back into the national pool. And a further help in preventing shortages, NHA points out, is the moving of existing housing with the reuse of equipment and materials.

Building Programs

Naturally enough, the busiest construction offices in Washington at the moment are those of the Army and Navy and the Veterans' Administration. Yet even these three, with their vital building programs, complain of manpower and materials shortages.

Neither Army nor Navy has much to say about future building programs—it all depends on what Congress does at the end of the war in respect to peacetime personnel limitations, appropriations, etc. Both expect to continue their present practice of employing private architects for much of their work, and both hope to turn some of their wartime temporary installations into permanent bases.

Veterans' Administration

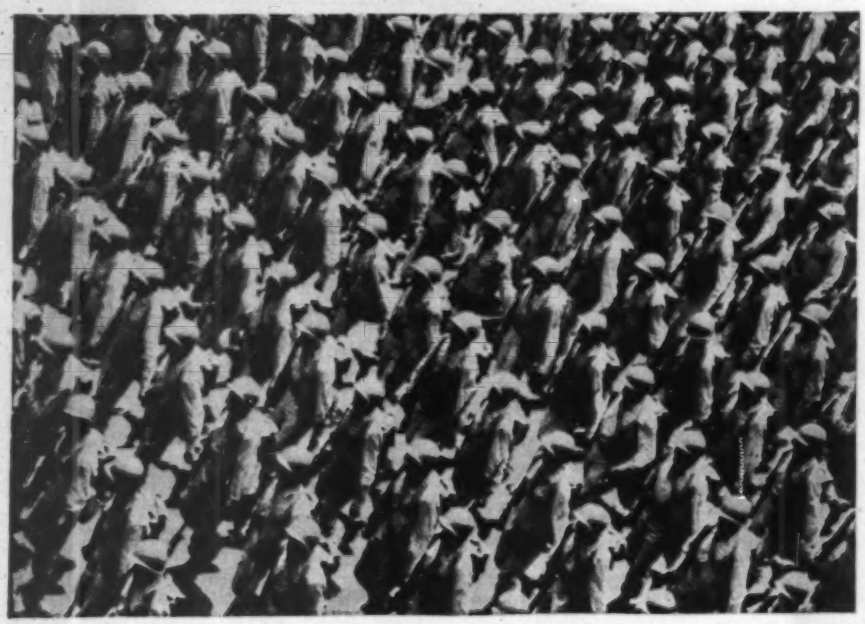
The Veterans' Administration, on the other hand, is full of postwar building plans as it prepares for the hundreds of thousands of men and women who will be in need of hospital care following their discharge from the Armed Forces. Brigadier General Frank T. Hines, Administrator, estimates that by 1976 when their peak need is likely to occur, the Administration will require a total of some 300,000 beds. Of these, existing facilities provide somewhat over 100,000 beds. Another 100,000, Gen. Hines estimates, will be made available in hospitals which the Administration will receive from the Army and Navy at the end of the war when the hospital needs of the Armed Forces are reduced. The remaining 100,000 beds must be provided in new facilities. It is this large-scale building program with which the Administration is now busy.

Under the Independent Offices Appropriation Bill for 1946, the Administration has requested $79,339,886 for new facilities. The program as now outlined includes 21 new buildings ranging in size from a 125-bed hospital in Delaware to an 1800-bed one in Western Pennsylvania. Two of the 21 are neuropsychiatric, three are tuberculosis, and the balance, general medical and surgical. Sites generally have not been selected. No private architects will be employed; all the work will be done by the Administration's own staff.

PBA Program

Postwar planning in the Public Buildings Administration has come to a temporary standstill as it has in most

(Continued on page 130)



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With an authorized capital of $1,000,000, Precision-Built Homes Corporation becomes the largest single corporate organization in the country devoted exclusively to the promotion of housing construction.

Under a broad program of expansion, the company will promote the Precision-Built System of Construction by: (1) merchandising Precision-Built Homes directly through selected department and furniture stores, as well as to operative builders, lumber dealers, contractors, realtors, insurance companies, lending institutions, prefabricators, industrial companies for employees, and through the export market; (2) licensing Precision-Builders to set up fabricating plants in major centers to service department and furniture store customers, and other outlets for Precision-Built Homes. It is planned to blanket the country with non-competitive fabricating plants, operating on a 75-mile radius.

Precision-Built Homes Corporation will continue the intensive research and study—originated nine years ago by Homasote Company—whereby it has become possible to apply mass production methods to conventional construction, without sacrificing flexibility of design. Licensees are ready to start large-scale home-building—just as soon as wartime restrictions permit. Precision-Built Homes Corporation invites inquiries on all phases of its activities.

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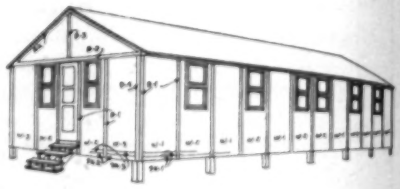
other departments. It had been hoped that appropriations would be made for the purchase and preparation of sites, but Congress has decided otherwise. The postwar program will, of course, be a large and varied one, probably will include a number of postoffice garages and a considerable consolidation of offices in government buildings to eliminate the use of rented space. Private architects will be used as widely as possible; it is not the PBA's intention to expand its own office staff any more than is necessary.

WPW Closing Up

The War Public Works division of the FWA is gradually closing up, although 20 projects were authorized late in January. This division was responsible for providing needed facilities, such as sewerage systems, hospitals and health centers, water works and fire protection, in areas congested by the war effort. When completed, its program will have totaled about $45,500,000.

Foreign Shelter

Despite the shortages and restrictions here at home, the Foreign Economic Administration and the NHA are going full steam ahead with their program of temporary shelter for England and France. "Housing is now recognized as an essential war commodity along with munitions, food and other supplies that the United States has shipped abroad to its allies," they explain.



American prefab for French dock workers

Arrangements were made with the French Provisional Government some weeks ago to produce in this country temporary shelter for 150,000 war workers in France repairing dock areas for war use. This order—the French will pay cash on delivery—consists of some 5,000 prefabricated 20 by 48 ft. barracks, each sleeping about 30 persons. Of the 5,000, 340 have just been reported ready for shipment.

Approximately 500 barracks are to be produced from 1300 temporary family units, FPHA has announcerd, that are not suitable for reuse as war housing here. The remainder of the order is being produced new, under private contract through FPHA, and with a minimum use of critical materials. It is being built in panels and packaged for shipment. If the expected production rate of 80 barracks a day is maintained, the entire order will be ready for shipment by March 31.

Plans for the 30,000 temporary dwellings to be produced here for the British, however, have just been approved by the WPB and the British, and bids are now being received on the first 3,000 of them. These are two-bedroom units, 24 by 24 ft. in size, including approximately 590 sq. ft. of living space. Produced under lend-lease, the 30,000 houses will cost $50,000,000, WPB estimates. Very little lumber will be used: exteriors are to be wallboard or fiberboard, roofs of cement asbestos board, interior partitions of light wallboard. The units will be shipped in panelized form, completely prefabricated, with plumbing fixtures for bath

(Continued on page 132)

THE SPENCER *Cleaned* SKYLINE

Because few mammoth buildings have been built during the past ten years, some people forget that the majority of the biggest and best buildings of every kind in the country are Spencer Cleaned, including those shown in the New York "Skyline" above.

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OFFICES AND WAREHOUSES IN PRINCIPAL CITIES
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 (Continued from page 130)

and kitchen included. Materials have been allotted by WPB to the FEA, with the exception of certain components such as the heating facilities, electrical wiring and glazing, which will be furnished by the British. Britain will also provide the shipping space. Shipments are scheduled to start before April 30 and be completed by the end of the year. The British are reported to be already at work preparing the foundations.

Real Estate Prices

Top government men are worried by the rise in real estate prices and, interestingly, each one's manner of worrying falls neatly into his own province. Federal Reserve Board Eccles fears that sooner or later rising prices will entail use of bank credit to finance transfers. Blandford finds that real estate trading is drawing housing upon the supply available for rental. Vinson and Bowles are afraid that it will create pressure to raise rent ceilings.

To keep prices down, the government agencies may ask for a capital gains tax applied to real estate; Eccles, indeed, already has proposed it. The fact that it will deter home owners from selling, thereby reducing the supply open to buyers, is considered a benefit rather than an evil, since the drain on rental housing thereby will be checked and properties will be held at lower cost prices. FHA, of course, is holding down its insurance to prewar values but savings and loan associations, which do not use NHA, are said to be stretching appraisals.

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FINE WAR MEMORIAL

Very much in line with the nationwide movement for useful war memorials is the San Jacinto Memorial Hospital being planned as a community venture in Texas.

To be dedicated to the Tri-Cities and East Harris County men who have given and will give their lives in the present war, the hospital has been made possible by the gift of $500,000 by the Humble Oil & Refining Company of Houston.

The hospital was incorporated in Austin on December 19, 1944 and granted a charter to operate as a private charitable corporation without profit. It will be built on a plot from five to ten acres in extent, will have a capacity of approximately 100 beds. Money for the purchase of the site will be raised by voluntary public subscription.

HOUSING NEWS

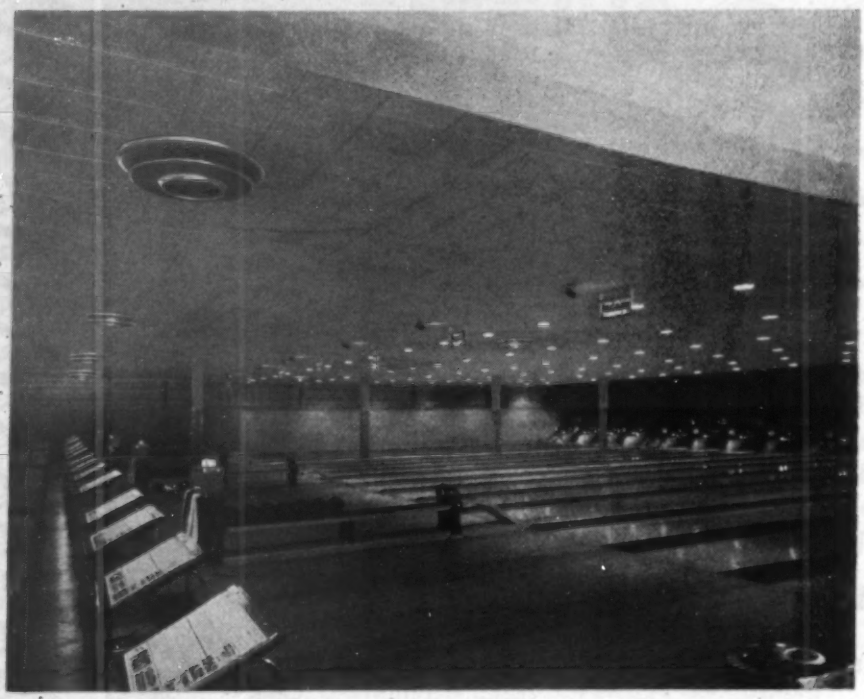
Rehousing Survey

Not more than 3 per cent of the families now living in the area in which the Metropolitan Life Insurance Company's Stuyvesant Town housing project will be built after the war can reasonably expect to be rehoused in the project itself, according to a survey made by the Committee on Housing of the Community Service Society of New York.

The acuteness of the rehousing problem in slum clearance is further indicated by the Committee's report that only 22 per cent of the families interviewed were found to be eligible for and interested in public housing.

Some 836 of the 3,400 families occupying the site on New York's lower East Side were interviewed, giving a typical cross section and a 25 per cent sample of the whole group. Half the families had lived in the neighborhood for 20 years or more, and 29.1 per cent

(Continued on page 134)



BARBER-COLMAN

MODERN BOWLING ALLEYS

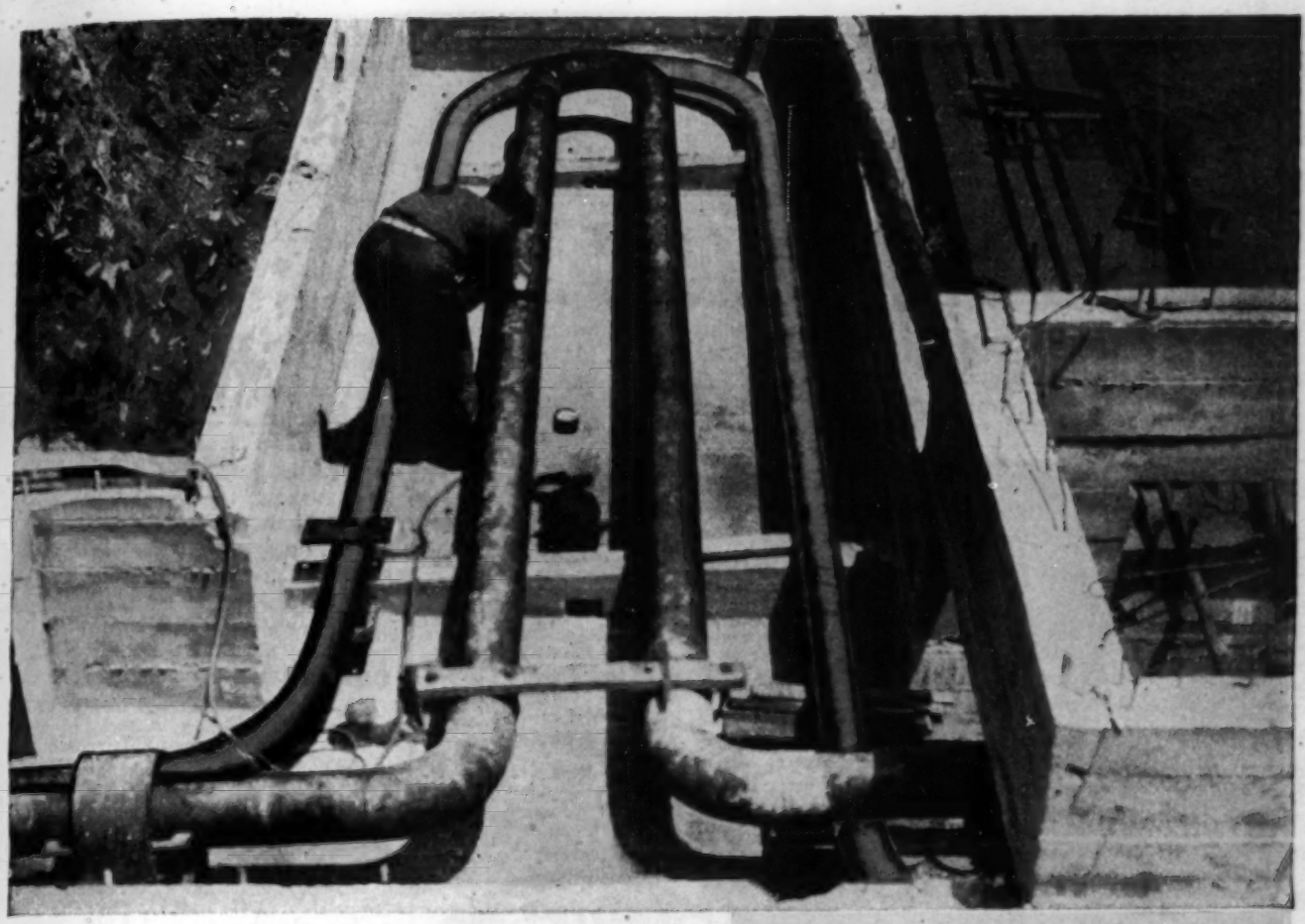
The tremendous popularity of bowling as a winter recreation and competitive sport has led to the building of many fine alleys, a good example of which is shown above. In this instance, particular thought was given to proper heating and ventilation, resulting in the use of VENTURI-FLO Ceiling Outlets. One row of outlets is located directly over the benches and another is a few feet down the alleys, to provide thorough and uniform air distribution in the area of greatest activity.

venturi-flo

CEILING OUTLETS FOR GUARANTEED AIR DISTRIBUTION

Data based on complete tests enable us to recommend exactly the right outlet for any condition and GUARANTEE results. You are assured of uniform, properly diffused air of the desired temperature at specified level, with required air movement and elimination of hot, cold, or drafty areas. Use ENGINEERED AIR DISTRIBUTION — see your Barber-Colman representative.

BARBER-COLMAN COMPANY
1232 ROCK STREET • ROCKFORD, ILLINOIS



The Trend Toward Permanence

EMPHASIZES THE ECONOMY OF LONG-LIFE MATERIALS

Illustration shows expansion joint for heating lines laid in 8,800 feet of concrete conduit at the University of Connecticut, Storrs, Conn. Condensate return lines, subject to the corrosive action of the boiler water, are of Anaconda Red Brass Pipe welded with Tobin Bronze*. Sixty thousand pounds of Red Brass Pipe, from 1½" to 6" S.P.S., were furnished by Crane Co., New Haven, who made the bends for the expansion loops.

Consulting architects and engineers to the State of Connecticut, Westcott and Mapes, Inc., New Haven. Contractor, C. N. Flagg & Co., Inc., Meriden. All welded joints were supervised and approved by Hartford Steam Boiler Inspection and Insurance Company.

*Reg. U. S. Pat. Off.

MORE AND MORE, civic and industrial planning inclines toward the long range viewpoint. Permanent construction—using quality materials—gains in favor over the practice of building for immediate needs only. This type of planning emphasizes the economy of using long-life Anaconda Copper Tubes and Red Brass Pipe to resist corrosive conditions in air conditioning, heating, plumbing and industrial piping installations.

Experience over the past few decades stresses the dependability and durability of copper and brass in these applications. The extension of chemical treatment of domestic waters further increases the need for these non-rust materials.

Anaconda Copper Tubes and Red Brass Pipe are furnished in a standard range of sizes and wall thicknesses and allow the architect or engineer a choice of threaded fittings, solder-type connections or welded assemblies. 4073

ANACONDA

Anaconda Copper & Brass

Buy War Bonds
Buy more
... HOLD ALL

THE AMERICAN BRASS COMPANY—General Offices: Waterbury 88, Connecticut

Subsidiary of Anaconda Copper Mining Company—In Canada: Anaconda American Brass Ltd., *New Toronto, Ont.*

THE RECORD REPORTS (Continued from page 132)

for 30 years or more; 59 per cent said they wanted to find apartments as close as they could to their present homes.

Although not a single employable person was found to be out of work, and incomes were generally higher than in prewar years, four-fifths of the families were definitely in the low income group with incomes of $200 or less per month, supporting three to eight persons. Some 300 of the 3,400 families were in receipt of public assistance, according to the Department of Welfare. Almost three-quarters of the families paid a net rent not exceeding $25 per month.

Stuyvesant Town will have apartments of three, four and five rooms renting at an average of $14 per room per month. Of the families interviewed there were only 62 in all, or 7.3 per cent, of the size that would fit into the apartments planned for the project whose *wartime incomes* were sufficient to rent accommodations there. However, not all of these families were willing to move into the new development. While they might conceivably afford that much rent now, they feared they would not be able to afford it after the war.

Coal Mine Village

A model coal mine village will be built in Walker County, Ala. by the Alabama Power Company for its Gorgas coal mine employees. The project will be built as materials and skilled help become available, with some of the houses probably to be started as soon as weather permits.

Each house in the development will have running water, sanitary facilities, bathroom and other modern conveniences, and will be located on a plot of approximately an acre.

POSTWAR BUILDER ACTIVITY

In reply to a questionnaire sent out recently by F. W. Dodge Corporation, 664 builders in the 37 states east of the Rocky Mountains report that they expect to build a total of 39,124 private dwellings in the first two postwar years. Of these, 22,984 were classified as for sale or rent, and 8,998 on contract. Average cost per dwelling ranged from less than $4,000 to $20,000 and over, with the mean reached at about $7,000.

Contracts were reported by 169 of the builders, prospective buyers by 398.

A NEW LIDICE

A model of the new Lidice, designed at Columbia University for construction in Czechoslovakia after the war, is ready for shipment to the London headquarters of the Czechoslovakian government in exile, Dean Leopold Arnaud of the Columbia School of Architecture has announced.

The model, completed by Robert H. Podzemny, Czechoslovakian architect and town planner, will be received in London by Dr. Joseph J. Kalenda, head of the Department of Public Works of the Czechoslovakian Ministry of Agriculture, who authorized the project on behalf of his government.

The new town will be located in a valley, surrounding a National Memorial Park. The 200-year-old church of St. Martin, destroyed by the Nazis in 1942, will be rebuilt in the center of the park on its former site.

Town dwellings will be constructed around a community center comprising shops, a library, municipal buildings, a post office and a movie theater.

(Continued on page 136)

South Brooklyn Savings Bank (Brooklyn, N. Y.), Dudley E. Soper, Architect. Child & Scott-Donohue Inc., Heating Contractors. BOILER PLANT — 2 — H. B. SMITH No. 34 "MILLS" BOILERS.

Boiler Plant for the Post War Bank

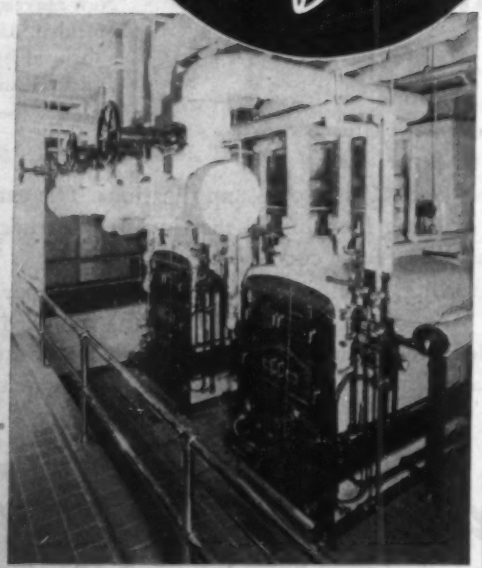
How will the post-war bank be heated?

It is our guess that the best bank buildings of 1941 provide the answer.

Take the South Brooklyn (N. Y.) Savings Bank, for example. Built in 1941, this building includes general banking space, vaults, offices, lounge and dining rooms, all of which are air conditioned for both winter heating and summer cooling. Three separate zones assure complete flexibility of operation.

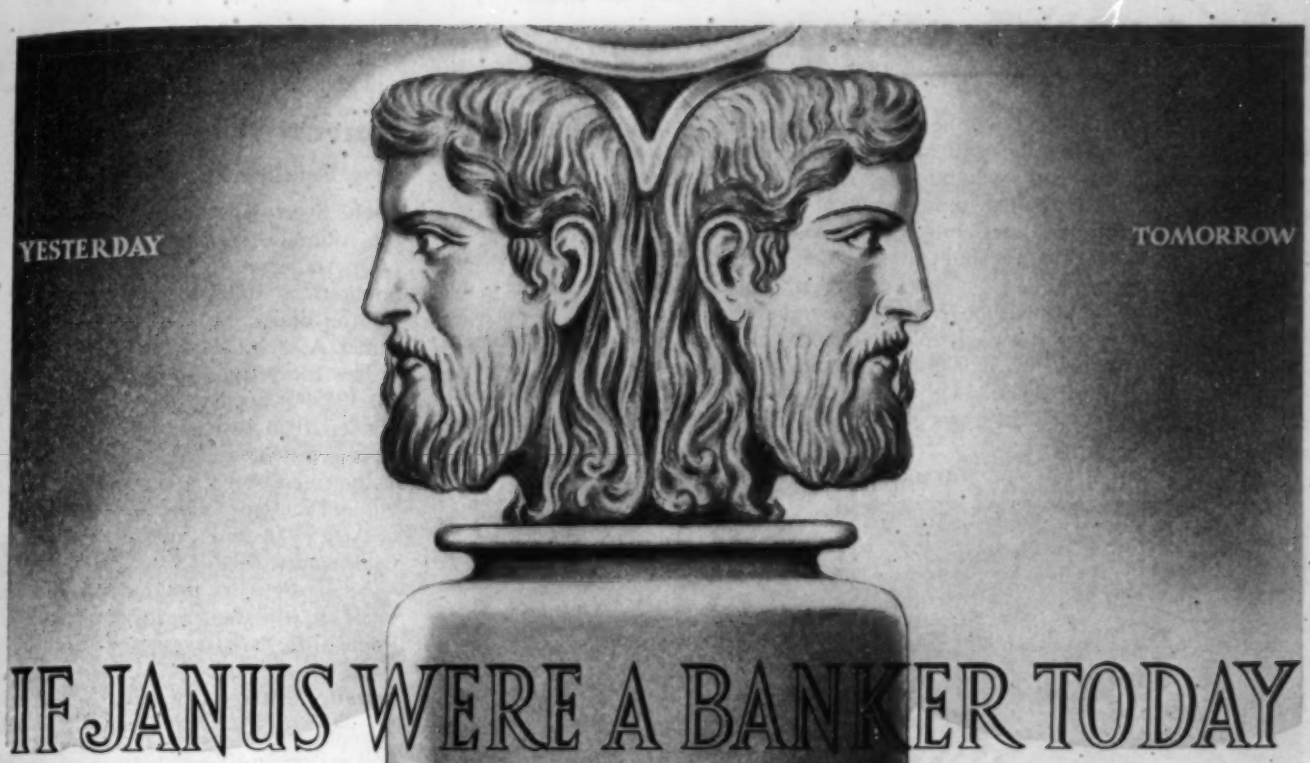
Dudley E. Soper, New York architect, specified two H. B. SMITH 34 "MILLS" boilers to supply steam because of their unusual adaptability to this type of modern system.

Let the architect or engineer with a bank building on his boards be guided by *existing* boiler installations of this type for he can *today* specify a known quantity in boiler performance . . . . H. B. SMITH.



H.B. Smith
CAST-IRON BOILERS

THE H. B. SMITH COMPANY, INC., WESTFIELD, MASS.
Branch Offices and Sales Representatives in Principal Cities



IF JANUS WERE A BANKER TODAY

HE WOULD have a distinct advantage: He could then look *backward* to what had happened in the past and *forward* to what was going to happen in the future.

The wise banker must plan for the safety and success of his future, based on a clear picture of the experiences of the past.

After World War I, the banking profession went thru its most disturbing period of night burglary and hold-ups. At the conclusion of the present war, it is plausible to believe that we will face an even more vicious cycle of crime.

That time may not be so very far away. The forward-looking banker will begin to give serious thought now to the matter of protection against crime in the future.

Architects, making plans for new buildings or remodeling projects, are urged to learn what science has created in the field of electronic-actuated burglar alarms and bandit barrier systems for banks. McClintock engineers are available for consultation with bankers and their architects upon request.

O. B. McCLINTOCK COMPANY
MINNEAPOLIS · · MINNESOTA

MANUFACTURERS OF
SOUND WAVE BURGLAR ALARMS · BANDIT BARRIER SYSTEMS · AFTER HOUR DEPOSITORIES
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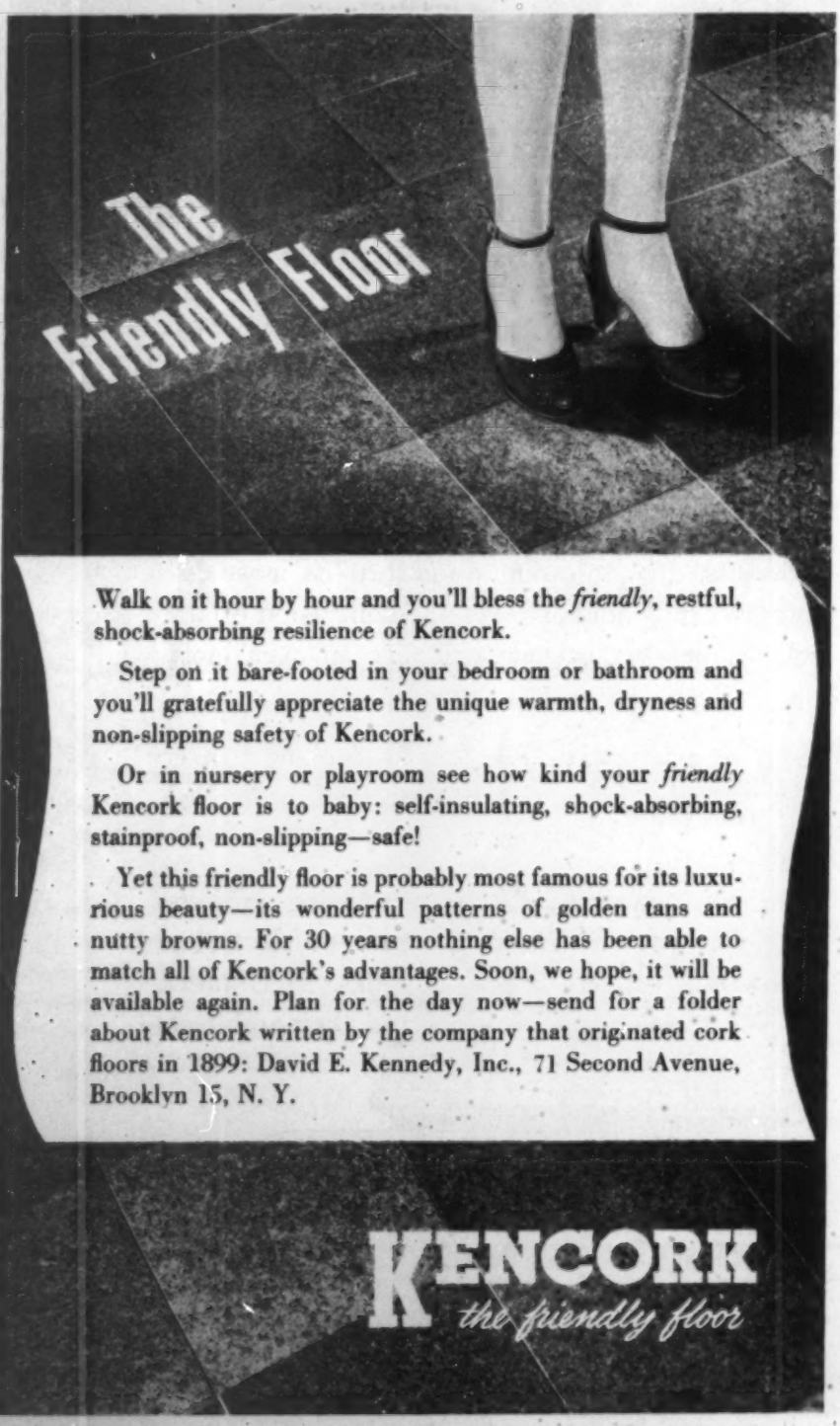
THE RECORD REPORTS (Continued from page 134)

A group of school buildings will be to the west of the community, with an adjoining play area and swimming pool. A regional educational center, including a School of Mines and a School of Agriculture, will be built to the north of the town.

The residential areas will be composed largely of one and two family houses, each surrounded by 12,000 ft. of lawn and garden space. Other houses will be arranged in rows, a small group of homes in each row. A community recreation center and sports stadium will be situated south of the school buildings.

Also planned is an international hotel, complete with facilities for all sports, surrounded by terraces and playgrounds, and abutted by a helicopter field providing transportation between Lidice and Prague.

A pavilion-style hospital, equipped with 100 beds and all modern facilities, will be set up on the west side of the town. Frequent under- and over-passes will reduce traffic hazards.


The Friendly Floor
Walk on it hour by hour and you'll bless the *friendly*, restful, shock-absorbing resilience of Kencork.
Step on it bare-footed in your bedroom or bathroom and you'll gratefully appreciate the unique warmth, dryness and non-slipping safety of Kencork.
Or in nursery or playroom see how kind your *friendly* Kencork floor is to baby: self-insulating, shock-absorbing, stainproof, non-slipping—safe!
Yet this friendly floor is probably most famous for its luxurious beauty—its wonderful patterns of golden tans and nutty browns. For 30 years nothing else has been able to match all of Kencork's advantages. Soon, we hope, it will be available again. Plan for the day now—send for a folder about Kencork written by the company that originated cork floors in 1899: David E. Kennedy, Inc., 71 Second Avenue, Brooklyn 15, N. Y.
KENCORK
the friendly floor

COMPETITIONS

New Memorial Competition

The Sperry Gyroscope Company and the Alumni Association of the American Academy in Rome have announced a collaborative competition for the design of a memorial to Dr. Elmer A. Sperry.

The competition, which closes May 14, 1945, is open to teams comprising not less than two nor more than four representatives of the arts of architecture, landscape architecture, painting and sculpture. One prize of $1,000, one of $200, and three of $100 each will be awarded.

Applications for programs should be made to the American Academy in Rome, 101 Park Ave., New York 17.

Theater Design Awards

Winners of the $10,000 WGN studio theater design contest for the most beautiful and efficient radio-television studio were announced February 3. The theater, seating 2,000 persons, will be the chief feature of a new building which will be known as "The WGN Chicago Theater of the Air," to be constructed after the war.

Two Chicagoans were winners of the $5,000 first prize: Arthur Frederick Adams and William F. Clark, specialists in architectural design and mechanical engineering of theaters and public buildings. Other prizes were awarded as follows: second prize of $2,500 to Hyland Dinion and Irving H. Merritt, New York City; third prize of $1,000 to Joseph T. Gemmi, Decatur, Ill.; and 15 honorable mentions of $100 each.

Boston Contest Awards

First prize of $5,000 in the recent Boston Contest was awarded by a team of six men from the faculty of Harvard University: Carl J. Friedrich, Professor of Government, chairman; Seymour Harris, Associate Professor of Economics; George Walker, Trustee of Real Estate; Walter F. Bogner, Associate professor of Architecture; Charles Cherington, Instructor in Government; Talcott Parsons, Professor of Sociology.

Second prize of $2,000 also was won by a team: Henry I. Harriman, vice-chairman, New England Power Assn., and former president of the Chamber of Commerce of the U. S., chairman; Louis M. Lyons, writer, *Boston Globe*, secretary; Edward Dana, president, Boston Elevated Co.; John C. Kiley, Boston real estate man; Joseph D. Leland, president, Boston Society of Ar-

(Continued on page 138)

READY . . . WHEN MEN AND METAL ARE MUSTERED OUT

Amidst a war for survival of their way of life . . . the American people look forward confidently to postwar . . . to days when they may enjoy the freedoms for which the war is fought. Architects are planning now . . . for schools and hospitals . . . for business offices and factories . . . for hotels and public buildings . . . to serve the Nation of Tomorrow.

Certain basic trends in the world ahead are already crystal-clear . . . new standards of comfort and luxury . . . maximum functional utility. In this planning for the days that lie ahead, GF designers, engineers and craftsmen are co-partners...*ready when men and metal are mustered out*...to again build Aluminum Chairs, Desks, Filing Cabinets and other metal furniture for institutions, business, transportation, and commerce.

THE GENERAL FIREPROOFING COMPANY • *Youngstown 1, Ohio*

METAL DESKS • ALUMINUM CHAIRS • METAL FILING CABINETS • STEEL SHELVING • FILING SUPPLIES • SAFES • STORAGE CABINETS

GF

chitects; Philip Nichols, lawyer; Robert Bottomly, lawyer.

The purpose of the Boston Contest, in the language of the program, was "to develop citizen interest and citizen participation in a forward looking and practical master program designed to promote the sound growth and prosperity of the Metropolitan Area." For a discussion of its significance, see the article by Joseph Hudnut, ARCHITECTURAL RECORD, Jan., 1945, pp. 58-63.

CONSTRUCTION RESEARCH PROGRAM

A pioneer movement designed to improve standards of construction and reduce the cost of building by coordinating the research efforts of building product manufacturers has been inaugurated by the Technical Committee of the Producers' Council, Tyler S. Rogers, chairman of the committee, has announced.

The first project to be undertaken is a study of the development of accepted methods for insulating light-gauge steel buildings. Representatives of steel and insulation companies forming the study group met in Detroit on February 1 to adopt a study procedure. Other meetings will be held as required.

NAME SALABLE?

Upon the dissolution of the architectural firm of R. H. Hunt Co., of Chattanooga, Tenn., in January, 194[4], T. G. Street, a partner in the firm, and W. C. Caton, for many years an associate of the firm, formed a new partnership retaining the old name of R. H. Hunt Co.

Ben F. Hunt, former partner, filed a bill in the Chancery Court of Chattanooga to enjoin the new firm from using this name. The Chancellor issued an injunction that the name be sold to the highest bidder. Both sides appealed to the Supreme Court of Tennessee.

On January 6, 1945 the Supreme Court of Tennessee held that the name was *not a salable* asset subject to a forced sale, and further held that Ben F. Hunt was not entitled to an injunction enjoining Mr. Street and Mr. Caton from using the name.

ARCHITECTURAL COURSES FOR VETERANS

Refresher courses will be offered by the Columbia University School of Architecture to returning veterans who are graduate architects but have never practiced because of the war, Dean Leopold Arnaud of the School has announced.

"Because of restrictions of space and staff," Dean Arnaud said, "it is planned to limit registration in these refresher courses to graduates of recognized schools of architecture. The courses will be given in concentrated form, will be reduced to absolute essentials, and will be of about 30 weeks' duration."

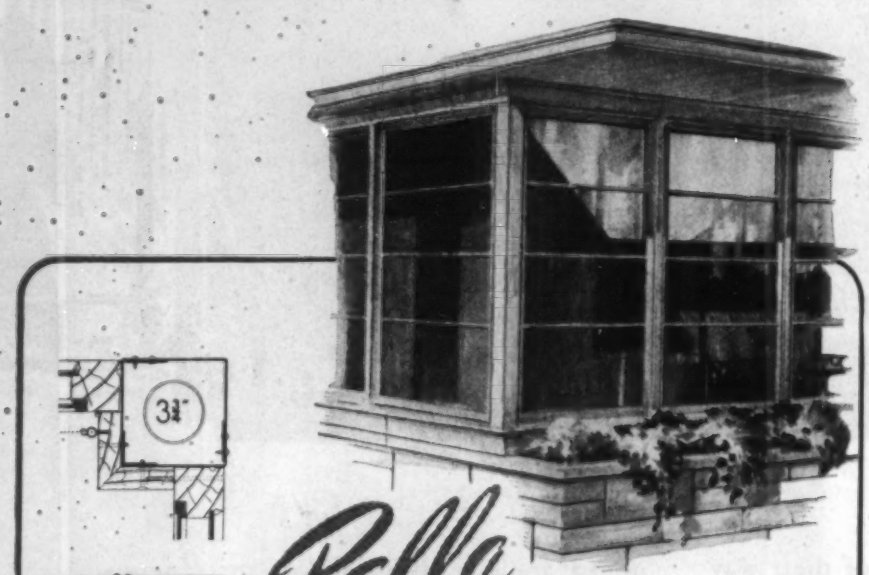
Special provision is also being planned by the Columbia School for returning veterans whose professional studies were interrupted by the war.

NORTHWESTERN'S BUILDING PROGRAM

Approximately $17,000,000 in new buildings, some of them to be erected immediately after the war, and others to be completed by the time of the University's centennial in 1951, are now being planned by Northwestern University, President Franklin B. Snyder has announced.

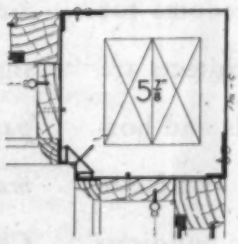
The buildings scheduled for early construction after the war include 10

(Continued on page 140)



Pella CASEMENTS

with steel corner mullions in 3 popular sizes



for greater light area and neater appearance

LARGER GLASS AREAS are easier to achieve through the use of these *smaller* steel corner mullions . . . created by Pella designers. Prefabricated of heavy gauge, galvannealed, rust-proofed steel. Pella corner mullions are available in three *space-saving* sizes—ranging in size from 5⅞" x 5⅞" down to 3¾" x 3¾", creating a neat, narrow-line corner.

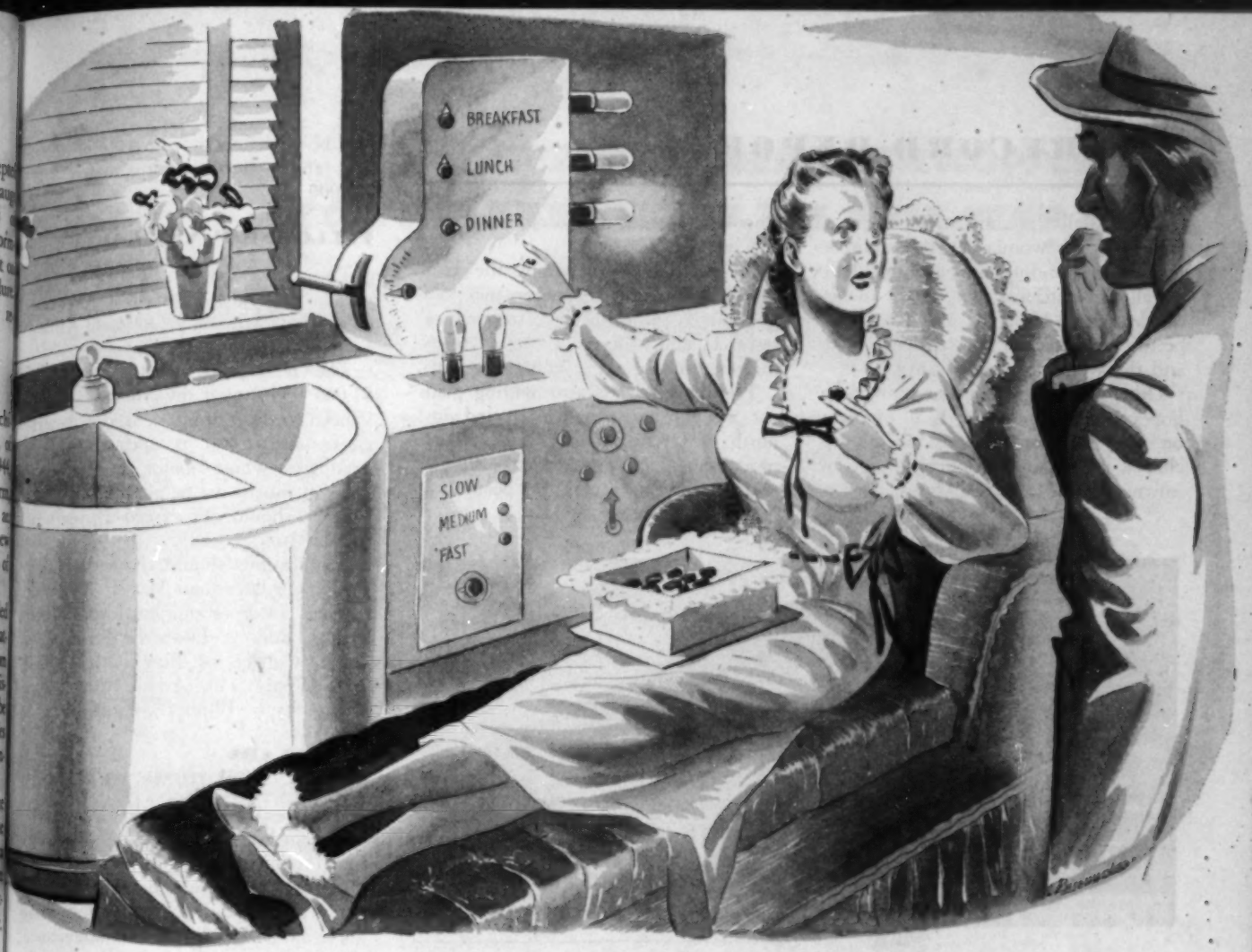
Pella prefabricated corner mullions save material and hours of construction time. Steel construction prevents rotting and warping. Permanent plumbness assures smooth window operation. Investigate Pella's extensive line of stock size casement units that permits more than 480 possible combinations of single windows, corner windows, bays, picture and kitchen windows. All factory fitted and assembled, ready to set right in the wall.

PELLA'S ALL-STEEL JOINING MULLION is *only* 1⅛" wide! It is a real space saver, *stronger* than the best wood mullion.

FREE for Architects and Builders . . . *A file pocket containing 22 loose sheets of scaled details that enable you to create individual and unusual window arrangements from Pella's stock size Casement Units. Send for your FREE set today. The Rolscreen Company, Dept. E-35, Pella, Iowa.*

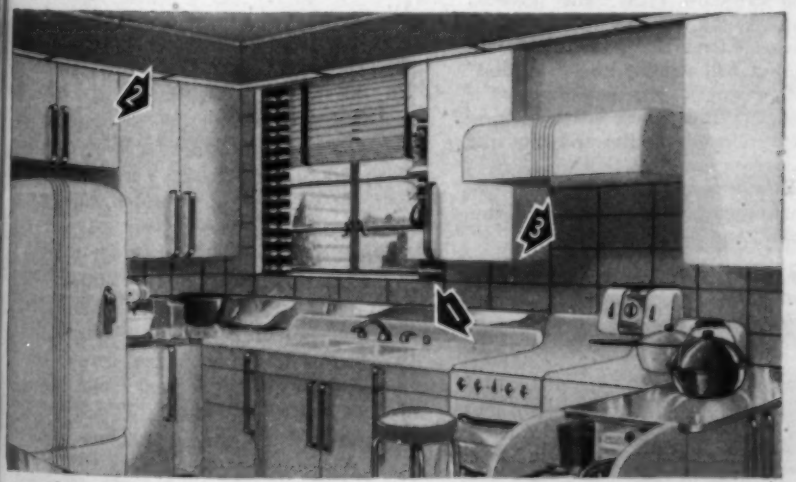
Pella CASEMENT WINDOWS

ALSO PELLA AWNING AND PROJECTED SASH AND PELLA VENETIAN BLINDS



"Late? well I've only got two hands!"

YOUR guess is as good as ours as to what the postwar kitchens will be like—but of this we are certain—*steel will be used in ever increasing quantities!* Why? Because steel is a low-cost, versatile metal. It is durable, easy to clean, strong and good-looking. No other material can do so many jobs so well. Write for our new booklet, "85 Ways to Make a Better Home." It shows how U·S·S Steel Products can be used to make better homes at low cost.



1. **STEEL SINK** of white porcelain enamel on a VITRENAMEL base, or you can have sparkling U·S·S Stainless Steel sink and work tops that last a lifetime. Both are easy to clean.

2. **STEEL CABINETS** finished in gleaming enamel. Wipe clean in an instant. Doors close quietly without banging. Steel drawers roll out easily without sticking.

3. **PORCELAIN ENAMEL WALL TILE.** Perfect for kitchen walls especially over sink and behind the range and refrigerator—cleans easily, withstands oven heat, never needs paint.

USS STEEL
UNITED STATES STEEL

ONLY STEEL CAN DO SO MANY JOBS SO WELL

CARNEGIE-ILLINOIS STEEL CORPORATION, *Pittsburgh and Chicago*
COLUMBIA STEEL COMPANY, *San Francisco*
TENNESSEE COAL, IRON & RAILROAD COMPANY, *Birmingham*
United States Steel Supply Company, Chicago, *Warehouse Distributors*
United States Steel Export Company, New York

UNITED STATES STEEL

 (Continued from page 138)

residence halls for men and women, a field house, a women's gymnasium, a humanities building, and a dining hall for all non-fraternity men on the men's quadrangles. Holabird and Root will be the architects for the residence halls and the women's gymnasium.

Other buildings that the University hopes to complete by 1951, all of them on the Evanston campus, include a chapel, an administration building, an infirmary, and new buildings for the schools of speech, education, commerce and journalism.

On the Chicago campus the University is making plans for two new hospitals, a large building for medical research, and a new building to house the activities of the evening divisions.

The University is also making plans for a field house to be erected just north of Dyche Stadium with accommodations including temporary and permanent seats for 14,000 people. It will be of brick or concrete construction, and will cost approximately $1,000,000.

FELLOWSHIP AVAILABLE

The University of Illinois has announced the 14th annual consideration of candidates for the Kate Neal Kinley Memorial Fellowship.

The fellowship yields the sum of $1,000 to be used toward a year's advanced study of the fine arts in America or abroad. It is open to college graduates whose major studies have been in music, art or architecture. Applicants should not exceed 24 years of age on June 1, 1945.

Applications should reach the Committee not later than May 1, 1945. For further information and application blanks, address Dean Rexford Newcomb, College of Fine and Applied Arts, Room 110, Architecture Bldg., University of Illinois, Urbana, Ill.

CIRCULARS FOR HOME BUILDERS

The Small Homes Council of the University of Illinois has just issued its first two circulars in non-technical language to give homeowners and prospective homeowners information about home building and maintenance, and has announced a dozen more similar circulars to be issued by July 1. "Storm Windows" and "Selecting the Home Site" are the titles of the first two pamphlets. Single copies are free on request to the Council.

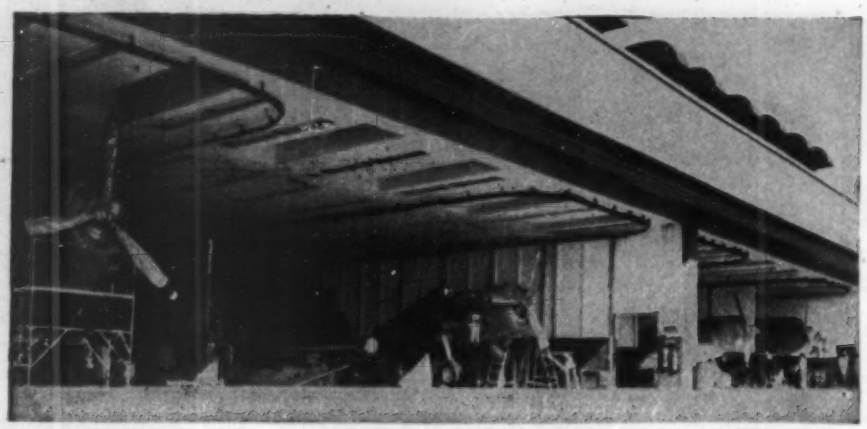
NAREB APPOINTMENTS

John McC. Mowbray of Baltimore, land development leader, has been appointed chairman of the Realtors' Washington Committee of the National Association of Real Estate Boards, and Harry L. Seldon, leading Detroit realtor, has been named to direct the program of the Association to provide good housing for Negroes on a sound business basis, Van Holt Garrett, new NAREB president, has announced.

As the policy committee for the Association's 721 local boards and 25,000 members, the Realtors' Washington Committee executes some of the major programs of the Association and represents the organized real estate industry on national issues. The Negro Housing Committee operates under the Washington Committee.

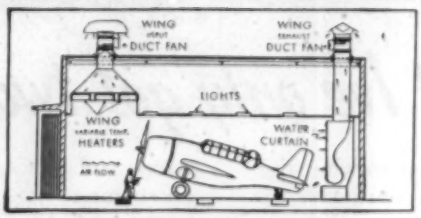
Mr. Seldon succeeds Newton C. Farr of Chicago, under whose direction last year the Negro Housing Committee began a strong fact-founded campaign to familiarize realtors throughout the country with the Negro housing field as an economic need and

(Continued on page 142)



Solving a Mammoth Painting Problem

With the Help of Wing Ventilating and Heating Equipment



Cross section of spray booth

In this, the world's largest water-wash paint spray booth, twelve Wingfoil Straight-Line Duct Fans take in 400,000 cubic feet of air per minute and deliver it through twelve banks of Wing Variable Heating Sections. The heated air is then circulated over the painting operation and directed to the rear of the booth where twelve Wing Vertical Straight-Line Exhausters draw the air contaminated with over-spray and fumes through a water curtain where it is thoroughly washed before being exhausted to the atmosphere.

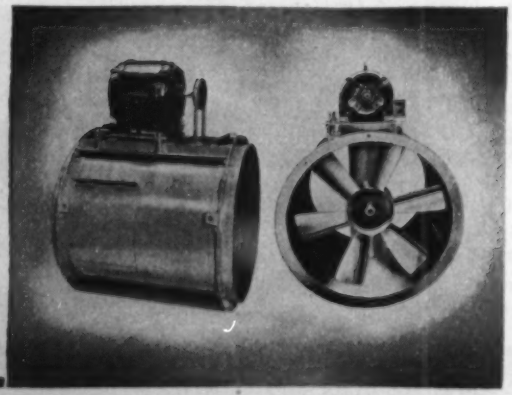
The Wingfoil Fans used in this installation are the new Non-Overloading Wingfoil Pressure Type Fans (patents pending). As the imposed air resistance increases, the fan motor, instead of being overloaded, will actually be "un-loaded"—in other words, less horse power is required. . . . This opens an entire new field of application to the architect and system design engineer.

Write for a copy of reprint "Problems in Paint Spraying" and Bulletin F-9 "Wing Ventilating and Duct Type Fans."

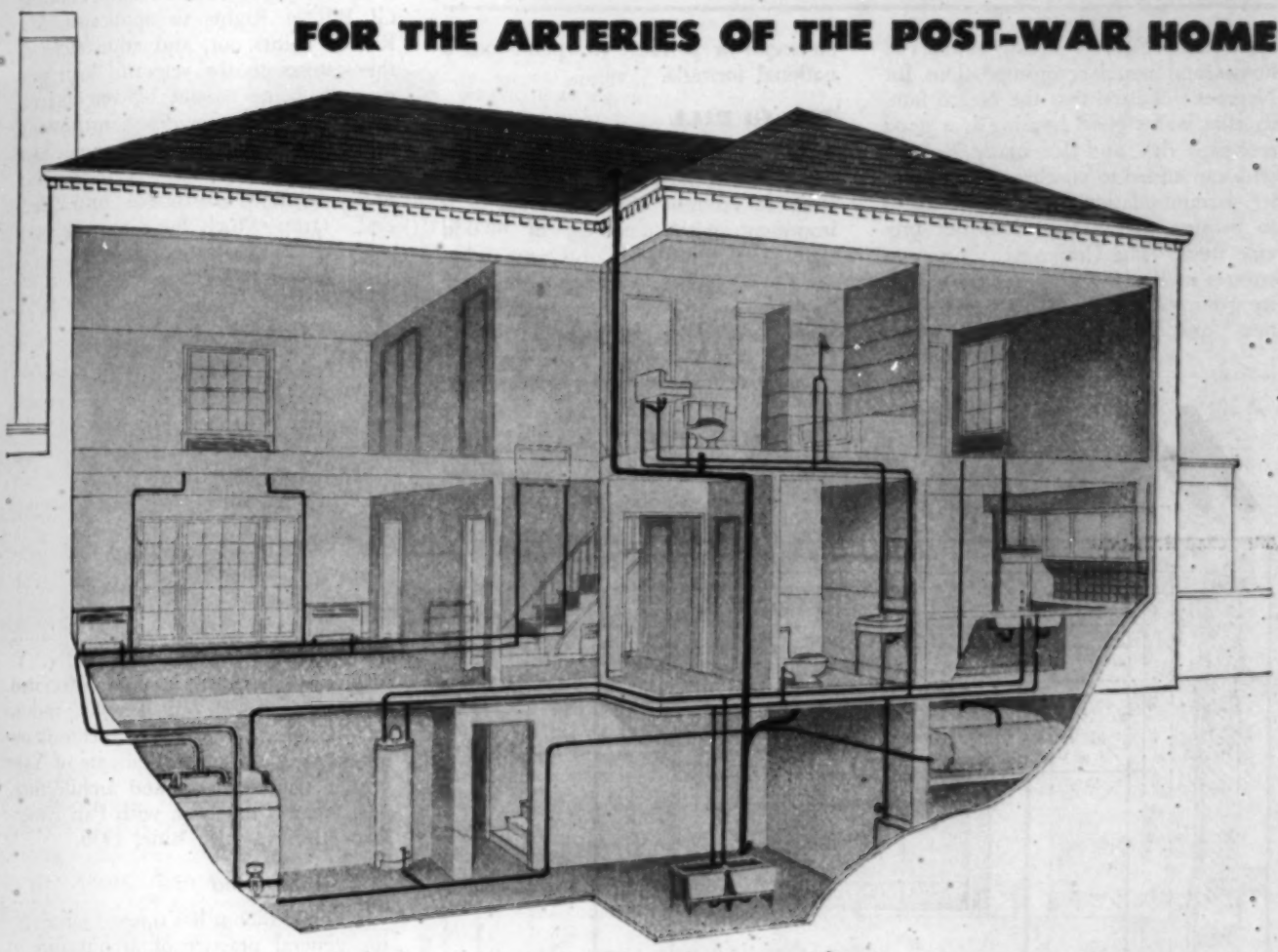
L. J. Wing Mfg. Co., 151 W. 14th St., New York 11, N. Y. Factories: Newark, N. J.
Made in Canada at Montreal

WING

AXIAL FLOW
DUCT FANS



SPECIFY STREAMLINE COPPER PIPE FOR THE ARTERIES OF THE POST-WAR HOME



When specifying or installing a plumbing or heating piping system, the following leading questions concerning the arteries of the building should be of paramount importance. You should be able to answer them with a positive "yes".

Will the piping system continue to give peak service year after year for the life of the building?

Will the modern fixtures in the bathroom, kitchen and laundry be adequately supplied with a full flow of water?

Will the radiators maintain their maximum efficiency in heating every room in the house?

Will it be free from leaks, particularly in concealed places behind the walls and between floors and ceilings?

Will it be forever free from internal clogging due to rust?

Will it actually add to to resale value of the property?

If the answer to any of these questions is NO —then you are not installing the piping system that will give you the utmost for the money expended, but if you wish to answer all these questions with a positive YES—then your choice will be genuine STREAMLINE Copper Pipe and STREAMLINE Fittings and you will specify and accept nothing else.

A STREAMLINE piping system offers the greatest possible resistance to rust and leaking water. It provides a lifetime, trouble-free, plumbing or heating system that, with the possible exception of extremely abnormal water conditions, will outlast the building in which it is installed. Plan on specifying and installing STREAMLINE Copper Pipe and Fittings for your postwar construction—or for replacement.

STREAMLINE
PIPE AND FITTINGS DIVISION
MUELLER BRASS CO.
PORT HURON MICHIGAN

THE RECORD REPORTS (Continued from page 140)

opportunity. Surveys among builders of homes and rental accommodations for Negroes indicated that the Negro family that wants good housing is a good economic risk, and that many Negroes who can afford to purchase or rent better accommodations are unable to do so because the market does not provide them. The Committee's program stresses its housing program for minority groups as one based on "good business" and local planning rather than on social or political viewpoint and a national formula.

THE GI BILL

The next big step ahead to implement the nation's program for home loans to veterans of World War II is imminent with meetings of 40-odd state legislatures early this year, Horace Russell, general counsel of the U. S. Savings and Loan League, reports. State laws in many cases now prohibit mortgage lending institutions from offering the full advantages of the GI Bill of Rights to applicants, Mr. Russell points out, and adjustment of the statutes to the veterans' loan program is being sought by veterans organizations and lending institutions. The loans already consummated have been in states with fewer restrictions, or by lending institutions under federal charter which have already been authorized to make such loans.

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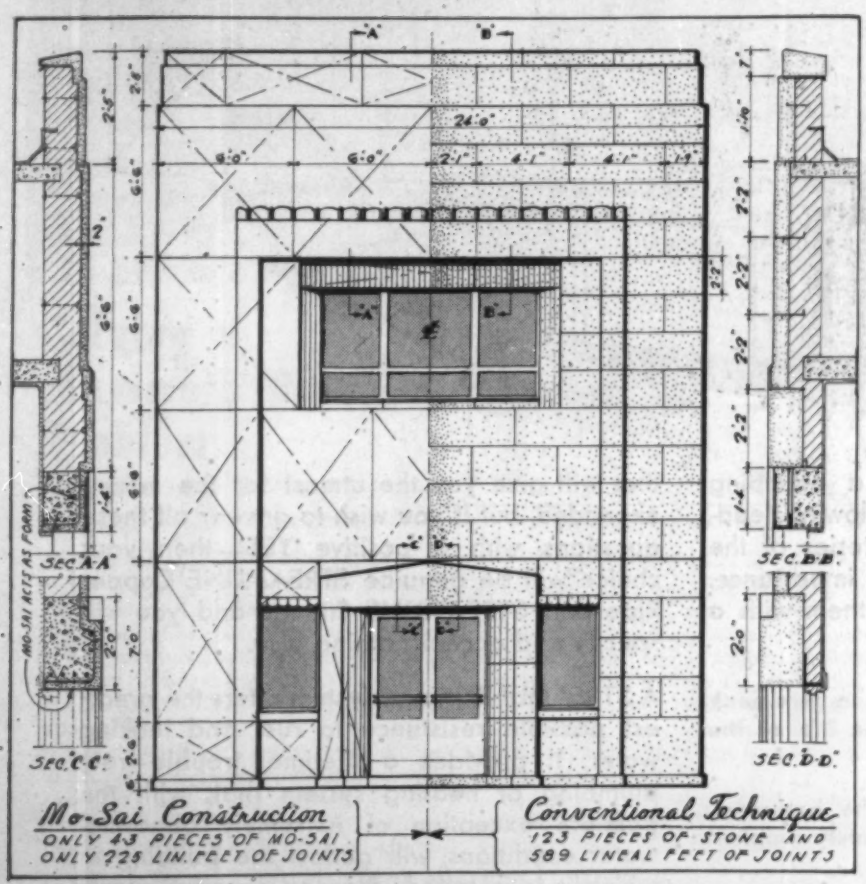
2" thin • large slabs
25 lbs. per sq. ft.



A graphic example of MO-SAI construction as compared to conventional technique. Note great reduction in number of pieces, joints and pointing. Less danger of leaks. Large, lightweight slabs easy to erect.

Interesting textures are provided by exposed aggregates of selected granites, quartz and vitrics. Unlimited color combinations. MO-SAI offers a new approach, a new freedom in design. For information on MO-SAI see our catalog in Sweet's and write nearest manufacturer below.

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Greensboro, N. C. ..... Arnold Stone Co., Inc., P. O. Box 477
Oshkosh, Wisc. ..... Badger Concrete Co., 191 Marion St.
Salt Lake City, Utah ..... Otto Buehner & Co., 640 Wilmington Ave.

MO-SAI Associates, founded to standardize and improve architectural slabs.
The registered trademark MO-SAI is the property of The Dextone Company.

NEW ADDRESSES

Firm Changes

Roland A. Wank, A.I.A., has resigned as head architect of the Tennessee Valley Authority to join the designing staff of Albert Kahn Associated Architects & Engineers. He has been head architect of the TVA since 1933.

Hubert C. Watson, former assistant traffic-advertising manager of Pan American World Airways, and recently special assistant to the Atlantic Division Traffic Manager at N. Y. Municipal Airport, is now associated with Walter Dorwin Teague, industrial designer, New York, as consultant on aviation design. A graduate of Yale with a degree in art and architecture, Mr. Watson has been with Pan American Airways since June, 1936.

Offices Opened

Bernard Bloom has opened offices for the general practice of architecture at 315 N. Seventh St., St. Louis 1, Mo.

Emil A. Schmidlin, architect, formerly a partner in the firm of McMurray & Schmidlin of Union, N. J., has established independent offices at 586 Central Ave., East Orange, N. J.

Offices Reopened

Munroe Walker Copper, Jr., architect, has reopened his office in the Heights Rockefeller Bldg., Cleveland Heights 18, Ohio. Mr. Copper has served for the past three years in the United States Navy.

Dan R. Sandford, Dan R. Sandford, Jr. and Maxwell T. Sandford have announced the reopening of their architectural office at Suite 325 Woodruff Bldg., Springfield, Mo.

New Offices

Roger Allen, architect, has moved from one suite of offices to another in the same building. Address: 1126 Grand Rapids Nat'l. Bank Bldg., Grand Rapids 2, Mich.

J. B. Hamme, architect, has moved his office to 220 E. King St., York, Pa.

The offices of the Detroit City Plan Commission have been moved to the 9th floor of the Griswold Bldg., 1214 Griswold, Detroit.

ST. JOHN'S HOSPITAL
SPRINGFIELD, Illinois

Established in 1875 by the Religious Hospitallers of St. Francis, this institution has gradually grown to its present capacity of 630 beds. Fabron is used to a considerable extent throughout these large and beautiful buildings. Its low maintenance cost is particularly appreciated in a hospital devoting a large part of their funds to charitable cases.

HOTEL BARNUM
BRIDGEPORT, Connecticut
WM. H. HUNT, Mng. Director

Bridgeport's newest 200 room hotel is a unit of the American Hotel Corporation which operates a chain of 50 hotels. Fabron in the rooms has solved the problems of rapid depreciation and of maintenance which are acute in this city bustling with wartime activity.

FABRON — ITS ARCHITECTURAL ADVANTAGES

Every architect is constantly faced with two major responsibilities. First, he must deliver to his client a structure designed to best fulfill its function and which is erected with durable materials selected for minimum maintenance; second, he aims at a record of sound judgment which is reflected in the finished building and which, from the structural and decorative standpoints, will become a creditable reference. Fabron fits singularly well with this reasoning.

Fabron fabric wall covering, specifically devised for institutional interiors, epitomizes the modern method of finishing interior walls and ceilings. It performs the double function of providing a durable and sound decoration and a protective and reinforcing agent to plaster. Its fabric and plastic body prevents the appearance of cracks, its sunfast lacquer paint surface is non-peeling, scuff resistant, non-porous and can be easily washed or disinfected as often as necessary. Its permanence eliminates expensive and inconvenient periodic redecorations, it reduces the cost of building maintenance — savings which are highly valued by every institutional administrator.

Each Fabron installation becomes a permanent testimonial to the architect's wise choice and business judgment. Hundreds of hospitals, hotels, religious institutions, apartment houses, colleges, schools, office buildings, etc., attest the proven merits of Fabron. References are furnished on request.

A wide range of colors, textures and patterns, specifically designed for institutional interiors allow the architect a great latitude of decorative expression, and the samples we furnish enable him to predetermine desired effects to insure his client's satisfaction.

Our Specialized Advisory Service—with more than thirty years of experience—is at the service of the Architect to lighten his burden. From his blueprint, a decorative schedule is prepared, complete with required quantities, samples and costs. Standard specification forms are sent on request. An example of the usefulness of this service, as well as complete information about Fabron, will be furnished by filling in and returning the coupon below.

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 (Continued from page 20)

the depths of the individual members constant, these variations require no changes in shop details or fabricating jigs.

As the top chord is a wide flange beam it can carry purlins at a variety of spacings without regard to panel points, and is also adaptable to continuous uniform loading. Similarly the bottom chord can carry loads at any point and can be used, itself, as a monorail.

A "natural" for welding, shop fabrication on a 50-ft. truss requires a total of 41 lineal ft. of fillet weld, all of which is accomplished by down welding. The H-sections are assembled in a jig, tack-welded and welding is completed with the truss in a vertical position.

Because it is fabricated completely from rolled members which are simply cut to desired lengths, no splitting, blocking, slotting or chipping is necessary. The only raw cut edges are closed by the welds, so that only the smooth, hard, rolled surfaces are exposed, which gives the truss a maximum of corrosion resistance, the company reports.

50-ft. trusses in new welded design

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Described as a plastic, smooth and buttery-like product which spreads and trowels easily, the new cement is said to have an exceptionally high yield and a low volume change; good color properties, durability, and strength to meet all requirements. Complies with the specifications of the federal government and the American Society for Testing Materials. Universal Atlas Cement Co., Chrysler Bldg., New York 17, N. Y.

HEATING COILS

Introduced to meet the more specialized requirements of extended surface heating coils in modern air conditioning, heating, drying and processing systems is a new and broader line of copper blast heaters and booster units.

The new line of coils incorporates design modifications which contribute to improved performance and durability, and which adapt these coils more closely to the actual needs of heating engineers and drying equipment designers.

Available now for wartime priority applications, these coils, in the types and sizes cataloged, will also be furnished after the war and can reliably be specified for postwar systems and equipment being designed today. Modine Mfg. Co., Racine, Wis.

BONDED INSULATION

For the first time in the history of mineral wool insulation, the United States Mineral Wool Co. (Chicago and New York) is offering its independent contractors the opportunity to give an Installation Bond on all home insulation contracts.

(Continued on page 146)

"It ain't necessarily so..."

Reduced fuel supply doesn't necessarily mean that buildings will be inadequately heated. It does mean, however, that you will have to consider your fuel use wisely in order to obtain comfortable heat.

The answer is *Control*. An automatically controlled Webster Moderator System will never waste any valuable fuel. It won't overheat or underheat because the amount of steam delivered to each radiator will be controlled to agree with outdoor temperatures. That's the secret of the Webster Moderator System of Steam Heating.

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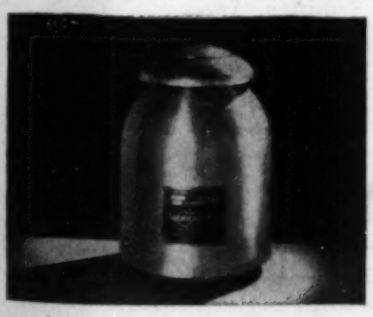

The Webster Outdoor Thermostat automatically changes heating rate when outdoor temperature changes.

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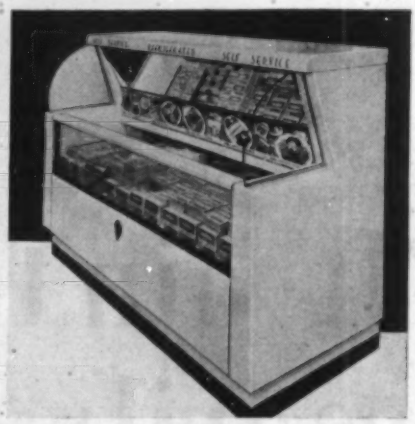
FOR BETTER BUILDING

(Continued from page 144)

Carefully selected insulation applicators throughout the country are being appointed by the company as Bonded Installation Contractors. Each of these contractors can now offer to any owner who is contemplating the insulation of his home, an Installation Bond issued by the New York Casualty Company.



Clear-view, handy display refrigerator

DISPLAY REFRIGERATOR

A new *Self-Service Frozen Food Display Refrigerator* makes it unnecessary for the customer to slide or open doors to obtain the merchandise. Frozen foods can be displayed within clear view and easy reach of customers. The case is so designed as to eliminate the need for reaching down into the refrigerator. Production is dependent upon removal or revision of WPB restrictions, and the unit cannot be obtained now. Hussmann Refrigeration, Inc., 2401 N. Leffingwell, St., Louis 6.

PLYWOOD ADHESIVE

A new adhesive, promising to lower plywood production costs by cutting bonding and assembly time in hardwood plywood, is *Amberlite PR-245,* a thermo-setting phenol formaldehyde in dry powder form, readily soluble in water, alcohol and mixtures of the two. Resinous Products & Chemical Co.

METAL WINDOWS

Restrictions on the sale of metal windows have been established to take the place of restrictions on their manufacture, the WPB has announced. This action will enable manufacturers to make standard and economic runs and to utilize labor more effectively.

The change, effected through an amendment to Order L-77, permits

(Continued on page 148)

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